The Development of a School Readiness Test for Use with Preschool Children in Lebanon

By

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A Thesis

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Abstract

This study aimed at developing a Lebanese preschool instrument, a Lebanese preschool readiness test that can reliably, accurately, and rapidly identify children who are ready for preschool. Collecting norms and establishing the psychometric properties of the instrument was another major function of this study. To fulfil these functions a thorough review of the literature on preschool screening, preschool instruments, preschool child, and early childhood education was presented. In addition, interviews were conducted with a representative sample of preschool teachers and coordinators in Lebanon, and a clear definition of abilities that need to be assessed before admission was reached. Based on this needs assessment, test specifications were laid down, items were constructed, materials prepared, and directions for administration and scoring were

written. The initial version of the test was piloted on a sample of 50 Lebanese children of both sexes aged 2.6 to 5.0. Based on the results of the pilot survey, test items were analyzed, and subsequently some items were revised. The final version of the test appeared with 122 items divided into four major scales: Motor, Memory, Concept, and Language. The test was then normed on a sample of 250 Lebanese children aged 2.6 - 5.0 enrolled (or applying) to large institutions representative of preschool population in Beirut and reflecting three socioeconomic levels (i.e. high, middle, and low). Norms were reported in the form of standardized scores and percentiles. T. and F. tests revealed that the subjects' means significantly varied by age, but that no significant sex differences were noted on the major scales (M, Me, L, & C), but that significant socio-economic differences were noted on the Language scale. The reliability of the instrument

was assessed by computing its alpha coefficient, and the obtained r (0.90) spoke well for the internal stability of the LPRT. Finally, the criterion validity of the LPRT was established by correlating subjects' scores with end of the year teacher ratings, and with their score on another preschool screening instrument, the DIAL R. In addition, and concurrent with the development of the test, other validity questions (content, construct) were also answered.

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CHAPTER I

Introduction

Like all other psychological tests, Infant and preschool tests are rooted in the intelligence testing movement of the late 19th and early 20th centuries. In the 1920s, as this testing movement gained momentum and branched out into various areas, a number of investigators in America began intensive studies of infants and preschoolers. These studies ultimately led to the development of the normative scores and intelligence tests exemplified by the work of Gesell (Yale Clinic of Child Development) and Bayley (Berkeley Growth Project). Appearing in the late 1920s and early 1930s, these tests gained widespread acceptance and led to a series of studies on the stability of scores, test-retest reliability from testing to testing, and predictive validity from infancy to childhood. However, they did not prove to have sound psychometric

properties, and they had very low if any predictive validity. The new wave of tests in the 1960s attempted to overcome these deficiencies.

Beginning in 1965, remarkable developments occurred in the testing of preschool children in the U.S.A because of the increased interest in early childhood education and the significant role the federal government began to play in education. The Head Start program and the Follow Through program, the most widely recognized educational experiments, directed attention to the need for effective program evaluation and adequate preschool assessment instruments. There is a need for assessment instruments capable of providing diagnostic and evaluative information across all areas of functioning. There is also a need for accurate and rapid assessment of children's readiness -- i.e. of the developmental and academic characteristics predictive of subsequent school success.

In Lebanon, although there seems to be little research or writing on preschool screening and assessment, yet such screening and assessment are common practices. Since public schooling is practically non-existent, and since private schools cannot accommodate the large number of applicants to their nurseries and preschools, they resort to preschool screening. However, the systems or instruments they use can be described as arbitrary at best, lacking standardization, validation, and cultural adaptation (personal note). The resulting evaluations thus represent a crude form of assessment. A great need for a more accurate, culturally relevant, and psychometrically sound instrument exits.

Statement of the Problem

The development of a valid, reliable, and culturally adapted preschool instrument in Lebanon

is an open question, as preschool assessment has not been addressed by the existing research.

Purpose

The major purpose of this study is to develop a Lebanese preschool screening instrument , a pre-school readiness test (LPRT), the basic function of which is to reliably identify those children who have attained the pre-requisite skills, knowledge, attitudes, motivations and appropriate behavioral traits that would enable them to profit maximally from school instruction. At the same time, identification through the test of children not mature enough for school can lead to intervention strategies that might reduce the risk of future school failure or serious difficulty. The study also purports to establish the endemic psychometric

properties of this instrument by gathering norms and obtaining various relevant reliability and validity measures.

Need

Although preschool screening is a common practice in Lebanese academic settings, the screening devices used are inadequate. This study could provide Lebanese schools with an index of a child's readiness for school and thus aid them in the selection and placement processes.

This study could also be of value to practitioners since by developing a test that could be used in assessing the overall mental health and developmental status of preschoolers at the particular time of testing, it might diagnose future problems they may face.

Finally, this study could facilitate the efforts of research oriented practitioners by providing them with a viable means of measuring the developmental progress of children in Lebanon.

Methodology

Instrument

The development of the instrument consisted of the following stages:

- A review of the literature on preschool screening and assessment and a survey of the major assessment instruments and the recent trends in the field. Details of both the review and survey are found in **Chapter 2**

- An in-depth analysis of the preschool child, his abilities and limitations. **Chapter 3** presents a clear and comprehensive description of the preschooler.

- A review of early childhood education--its goals,

scope, and content-- both in a general context and with special emphasis on the Lebanese situation. The current status of preschools in Lebanon was determined through a review of the scanty literature on the topic. In addition, a survey and an evaluation of preschool practices in Lebanon were carried out. A clear definition of preschool objectives was reached and a detailed description of the abilities that need to be assessed before admission was outlined, based on the research outlined above, and on interviews conducted with a representative sample of preschool teachers and co-ordinators in Lebanon. **Chapter 4** summarizes the literature on early childhood education in Lebanon and abroad, and reports results of the survey and interviews conducted. A copy of the interview used in the survey is found in **Appendix D.**

- The development of test specifications was based on the needs assessment outlined in Chapter 4. A clear

statement of the purpose, rationale, tasks, and item characteristics of the instruments was formulated, including the editorial and statistical procedures to be followed.

In accordance with the above specifications, items were constructed, materials prepared, and instructions for administration and scoring written. **Chapter 5** presents details of the instrument, with instructions and accompanying materials.

Sample

The test was piloted on a sample of 50 Lebanese children of both sexes, aged 2.6 - 5.0. Care was taken to make this sample representative of applicants to the various preschools in Beirut and details of the sample are provided in **Chapter 6**. The test items were analyzed and subsequently revised based on the result of the pilot survey.

The final version of the test (**Appendix A**) was administered to approximately 250 Lebanese children, aged 2.6 - 5.0, enrolled in nurseries, daycare centers, and private schools. The subjects from both sexes were divided into 5 age groups:

Age Group I (2 years 6 mos. to 2 years 11.5 mos.)

Age Group II (3 years 0 mos. to 3 years 5.5 mos.)

Age Group III (3 years 6 mos. to 3 years 11.5 mos.)

Age Group IV (4 years 0 mos. to 4 years 5.5 mos.)

Age Group V (4 years 6 mos. to 4 years 11.5 mos.)

Specific demographic information about the sample is presented in **Chapter 6.**

Administration

Testing of the children was carried out by the principal investigator and by one other trained examiner (a graduate student).

Standardization

Means and standard deviations were calculated for

each subgroup and for the whole sample. Raw scores, standardized scores, and their percentile equivalents are reported in **Chapter 7**, both for the whole test and for each of the subscales.

The internal consistency of the instrument was established by calculating the alpha-coefficient for the whole sample and for every age group.

The criterion validity of the instrument was established by correlating its scores with teacher ratings (school performance) and with scores on another instrument (Dial-R). In addition, its content validation was established on an a priori basis as the items were developed on the basis of the skills, abilities, and behaviors the instrument purports to measure.

Assumptions

The study made the following assumptions:

1. The sample selected was representative of the preschool population in the Greater Beirut area.
2. The examiner and her assistant were well-trained in the administration and scoring of the instrument.
3. Possible instrument bias was randomly distributed.

Limitations

1. The external validity of the study is limited by the size and geographic location of the sample. Also, generalization is limited to children with characteristics that are similar to the sample selected.
2. The validity of the study may have been influenced by instrumentation bias.

CHAPTER II

Review of the Literature

In the Republic, Plato asked, "Don't you know that in every task the most important thing is the beginning, and especially when you have to deal with anything young and tender ?". The literature clearly emphasizes this importance of infancy as a period of rapid development and the critical role the early childhood years play in the prevention of later learning difficulties (Kaufmann, 1978; Lidz, 1977; Reynolds, 1979). Gesell, the pioneer in establishing and defining the field of infant assessment, outlined its importance in 1925 :

> The preschool period of development holds an ambiguous and undisputed preeminence in the dynamic series. It comes first. The priority confers upon it a dominating influence. It is the

> most consequential period of development for the simple and decisive reason that it comes first.... The earliest periods of development are always the periods of most rapid, most intense, and most fundamental growth. The brain grows at a tremendous rate during the preschool age reaching almost its mature bulk before the age of six. Never again will his mind, his character, his spirit advance as rapidly as in the formative preschool period of growth. Never again will we have an equal chance to lay the foundations of mental growth (pp. 10-11).

Definition of Preschool Assessment

The practice of preschool assessment is not a recent one. It is as old as the first intelligence testing movement and the first child biographies of the nineteenth century. What has changed is the meaning and/or labelling of this concept. The instruments and

methods used for screening and/or predicting subsequent school achievement have varied widely. Children have been examined in terms of their early development, mental development, adaptive behavior, fine and gross motor development, intelligence, cognitive development and academic readiness (Gallo, Clements, & Robertson, 1984). The preconceived assumptions, beliefs, and prejudices held about intelligence have subtly shaped both the nature of infant and preschool assessment and the methods used in its study (Lewis & Sullivan, 1985). The historical development of preschool assessment will be reviewed in a later section, while some of the different meanings associated with it appear below.

Measurement of intelligence (Binet & Simon, 1905). Intelligence here is defined as a collection of faculties that measure a child's general intellectual functioning.

Developmental assessment (Gesell & Amatruda,

1947). It is essentially an appraisal of the maturity and integrity of the child's nervous system, with the aid of behavioral stages and information about past and present history. The objectives of the evaluation are basically developmental, neuromotor, and sensory. The infant's behavior, which is surveyed and appraised in terms of his chronological age, may prove normal, may reveal general retardation in maturation, or may show deviations. The examiner is here concerned with the infant's behavioral status. There is no right or wrong response, no success or failure. Any response is appropriate to some age level of central nervous functioning.

Early Identification. This term refers to the practice of screening infants and preschool children in an attempt to predict those likely to experience school problems (Mercer, 1974). Proponents of early identification suggest that early development is

important to later progress and that the behavior of young children is very susceptible to positive change. They also state that as a rule prevention is more effective and economical than repair, and therefore call for early identification and correction of problems (Leichtenstein & Ireton, 1986). Based on several years of clinical study, De Hirsch, Jansky & Langford (1966) conclude that the early identification of learning difficulties will eliminate the need for later measures.

School Readiness. Refers to the attainment of prerequisite skills, knowledge, attitudes, motivation and other appropriate behavioral traits that enable the learner to profit maximally from school instruction (Anastasi, 1982), i.e. the entry skills a child needs to cope with the teaching/learning situation. To find valuable and nonstressful experiences during his school years, a child should be developmentally ready

(May & Welch, 1984). The Gesell Institute (1980) states that the child who is not ready rarely catches up and may develop an uneven pattern of growth. The Gesell Institute maintains that many school difficulties, including problems diagnosed as emotional disturbances, learning disabilities, minimum brain damage and underachievement, are the result of children being asked to perform at levels for which they are not developmentally ready.

Purposes and Goals of Preschool Assessment

The purposes and goals behind preschool assessment vary and are greatly affected by the prevalent philosophical orientations at any one period of time. To Lewis (1976), preschool assessment aims at evaluating the overall health and developmental status of children at the particular time of testing, i.e. it should provide a measure of present performance. Early

identification of children's needs and/or later problems they may face constituted the primary impetus for preschool assessment (Casey, 1976; Frazier 1966; Leichtenstein et al., 1986; Reynolds, 1979). The need for preschool screening evolved from the fact that a substantial number of children were found to be struggling, progressing poorly, or failing in school. Approximately 9.5 million children, 12 percent of school age children in the United States, are impaired by physical, mental, or emotional problems that pose obstacles to their having a successful school experience (Leichtenstein et al., 1986). The identification of these children prior to school entry can lead to interventions that may reduce the risk of school failure or serious difficulties. Frazier (1966) stresses the importance of identifying each child's needs :

> Many of the children who enter kindergarten may

> lack the perceptual-motor skills, conceptual skills, or psychomotor skills which should be present to ensure that learning can take place. Children with such needs may be unable to benefit fully from instruction offered. To admit children to school with unknown deficits is to start a failure cycle based upon lack of readiness compared to other children, (pp. 4-5).

As a result of her 1971 study, Boehm stated that some of the major purposes of assessment are to "measure those aspects of children's functioning which appear related to later scool success. Utilize measures in a diagnostic manner so that levels of children's functioning can be determined with regard to strengths and weaknesses. Provide information to teachers which will help them modify and/or develop curricula to meet the specific needs of children." (p. 523). This last goal of providing teachers with

accurate and reliable pre-kindergarten data that can be used to individualize programs for young children has also been stressed by Casey (1976).

History of Preschool Assessment

Introduction.

Prior to the 19th century, the assessment of human ability was given little attention. During that century a central issue raised was the lack of any classification scheme for identifying those who might benefit from a proper education and those who are uneducable (Goodenough, 1949). It was precisely this need for some form of classification of human ability that impelled the great scientists of France, England, Germany, and America to formulate the early versions of our present- day mental tests (Kelly & Surbeck, 1983). Factors that fostered the assessment of intellectual functioning in infants and children

included : (a) Originating in German laboratories,the scientific study of psychological processes of perception, sensation, reaction time, and memory ; (b) British scientific interest in the heredity aspects of intelligence, particularly giftedness; (c) American interest in individual differences and the prediction of scholastic achievement; (d) interest in early human behavioral development; (e) French and American medical and educational progress in the diagnosis and training of the mentally deficient; and (f) the need for standardized testing and placement criteria demanded by the establishment of compulsory public schooling in France and America (Lewis et al., 1985).

Pre - 1905

While new concepts of intelligence were proposed and challenged, concomitant changes occurred in the instruments used to assess mental abilities. In

this period, British and French contributions to the testing movement were in the forefront.

Darwin's theory of evolution (1859) fostered a widespread belief that intelligence was a function of heredity and thereby unmodifiable. This view of intelligence, promoted also by Darwin's cousin Galton (1884), remained predominant until the early 1930's. Darwin and Galton conducted various studies of infant behavior; Darwin's publication of his infant son's biography in 1877 christened infancy study as an appropriate area of scientific inquiry. Thirty similar biographies appeared in print from 1877 to 1907 (Papalia & Olds, 1975). These early biographies on infants were important to the testing movement in that they demonstrated a sequence of similar behavior patterns in early development and also highlighted individual differences regarding the rate of development (Goodenough, 1949). In addition, such

biographies expanded the fields of scientific inquiry to an age heretofore largely neglected, resulting in the first awareness of the importance to later development of infancy and the early years of childhood.

The French were primarily concerned with the mentally deficient and their school placement. In 1905, Alfred Binet developed his scale with the sole purpose of identifying, classifying, and referring for special instruction children in public schools who were not of normal mental ability. His test was the first widely known one that included items appropriate for 2-year olds. Development of the Binet scale gave impetus to a changing concept of intelligence and generated a widespread movement of scientific investigation during the twentieth century (Kelly et al., 1983).

1905 - 1920

The 1905 Binet scale was revised in 1908 and 1911, raising a number of important methodological issues in

the process. In 1916, Terman of Stanford published the Stanford - Binet test and introduced for the first time the concept of "intelligence quotient". The child study movement gained great momentum, particularly in the U.S.A. under the leadership of G. Stanley Hall at Clark University. However, the focus during this period was on school-aged children and not on preschoolers or infants, and it became apparent that additional revisions in tests for the preschool years were needed. It was not until the next decade that tests specifically for preschool children and infants were constructed. With the 1937 revision, the Stanford-Binet became appropriate for assessing children below school age.

1920 - 1940

During this period, assessment research on young children focused on the very basic issues of: (a) defining the characteristics of normal children; (b)

determining the etiology of intelligence, i.e. heredity or environment; and (c) improving the assessment of the very young child (Kelly et al., 1983).

The earliest significant interest in understanding and defining the development of preschool children was shown at the Yale Clinic for Child Development in the U.S.A.. Extensive series of investigations of infants and preschool children were carried out there under the direction of Arnold Gesell, a pediatrician. This research continued for forty years, refining methods of observation and providing extensive normative data. It assured Gesell a place in history as a pioneer in the field of infant assessment and as an outstanding advocate of infancy study in general (Yang, 1979). Between 1925 and 1949,Gesell and his colleagues developed a scale for the assessment of behavioral development from infancy through the age of six (Gesell, 1925;

Gesell et al.,1947). Gesell's Developmental Schedules probably represent the most extensive description available of the behavior of infants and young children. What stands out in Gesell's approach is that he eschewed the concept of intelligence, choosing to deal with it in the frame of developmental status. He used a holistic approach representing the totality of an infant's effective functioning which may be evident in all behavioral domains and not just the intellectual (Yang & Bell, 1975). Operating under the belief that growth and development were biologically predetermined, Gesell and his colleagues argued for a maturational perspective that incorporated a qualitative change in development (1925). In this manner, he emphasized the sequence and process of growth rather than simply its predictability (Honzik, 1983).

Concerned with improving the assessment of young

children, Nancy Bayley developed her first mental scales in 1933, as part of the Berkeley Growth study. Bayley's scales were the first infant tests specifically designed to predict future competencies. Her concern was not with normative data per se, but with those specific infant behaviours that are significant as criteria of future development and with determining the extent to which mental development was consistent over age. Bayley was also scrupulously concerned with the psychometric properties of her tests. Her early mental scale (1933) failed to produce high predictive validity, a result which Bayley concluded was indicative of the nature of early intellect, noting that "intelligence is an emergent function taking different forms at different periods of development. One would not expect correlations to appear between what were disparate forms of intelligence at different ages. Not until the age of 2 years do these composites

exhibit a significant degree of overlapping with aggregations of traits constituting intelligence" (1933, p. 82). Bayley's scales continue to be the most thoroughly researched infant assessment instruments (Brooks-Gunn & Weinraub, 1983). The 1969 revision of these scales makes them the best standardized of the American infant scales (Lewis et al., 1985).

Greatly influenced by Gesell, test developers and child developmentalists assumed that development was predetermined and intelligence genetically fixed. However, the results of the first research with preschoolers, suggesting that intelligence was modifiable and affected by the quality of early environment, led to the questioning of a major assumption about the immutability of intelligence (Kelley et al., 1983). The great debate between heredity and environment with respect to I.Q. started at about the same time and continues to the present. In 1937, the Stanford-Binet

published by Terman incorporated additional items for the preschool child together with more elaborate standardization procedures. In conclusion, the 1930s may be considered a period of "consolidation", as extensive research on the reliability and validity of early tests was done (Brook - Grunn et al., 1983).

1940 - 1960

The two decades between 1940 and 1960 marked a period of "growing disillusionment" with infant tests because of their poor predictive validity. Several major efforts were made to improve on that or develop new instruments. In 1949, Wechsler developed the Wechsler Intelligence Scale for Children (WISC), which incorporated subtests designed to measure various factors related to intelligence. The one-factor vs. the multifactor theory of intelligence was another issue during this period. The economic depression and World

War II created the need for more and better child care facilities (Osborne, 1975). Better assessment devices were needed. The newly developed tests, although more precise than the earlier versions, still proved to be inadequate in predicting later mental development. As a result, the belief that intelligence is qualitative rather than quantitative in nature began to gain acceptance in the literature (Kelley et al. 1983), and theoretical revisions regarding the theory of the nature of development began to take place. The notion that skills that could be tapped during infancy were qualitatively different from those that were tapped later began to receive greater acceptance. At the same time, the relationship of these skills to the construct known as intelligence was believed to be quite complex.

The publication of Piaget's theory and view of development in 1952 had a great impact not only on the definition of intellectual development in children but

also on the whole field of childhood studies. Piaget produced a comprehensive and logically consistent theory of intellectual development, which has a multi-disciplinary flavor in that it draws on concepts from biology, philosophy, logic, and psychology (Gruen, 1982) Piaget's theory, which continues to evolve, until the present postulated a fixed sequence of "structures" that were qualitatively different in composition yet functionally related in that each developed sequentially out of the earlier "structure". Central in this theory is the concept of experience. To Piaget, the quality of the environment and the nature of the organism's activity are of vital importance. This view of development, coupled with multi-factor analytical models of intelligence, significantly altered the nature of test construction, subsequent research, and educational thought (Kelley et al., 1983). Several scales were developed based on the developmental

theories of Jean Piaget, most noteworthy of which are those prepared by Pinard and Laurendeau (1969) and by Uzigiris and Hunt (1975). Although still in their experimental forms, these Piagetian scales yield a rich picture of what the child can do and how he or she does it (Anastasi, 1982).

1960 - Present

The emphasis on the role of the environment, highlighted by Piaget's theories, and the success of child care centers led the U.S. federal government to play a more significant role in education. In the 1960s, preschool education and assessment exploded with the availability of federal monies for preschool and special education (Lewis et al., 1985). Compensatory early childhood education programs were developed in the mid 1960s and early 1970s, with the head Start and Follow Through programs as the most widely

recognized experiments. These programs directed attention to the need for effective program evaluation and adequate preschool assessment instruments. Hence, we are told that over 200 assessment instruments were constructed and published during the years 1960-1970 to measure the "whole child" (Yang, 1979).

From the late 1970s until now, there has been increasing concern with the early identification and remediation of learning disabilities (Lears & Taft, 1982). Once again the preschool child has been targeted for assessment. The new activities point to a shift from general skills to specific ones and from strictly normative to process-oriented assessment. A systems approach to assessment was proposed recently (Eaves & McLaughlin, 1977), concerned with the overall assessment of the child and his environment while considering the two as interactive, thus aiming to

account for the qualitative changes in the level of functioning more adequately.

The 1970s also witnessed concern with various aspects of "readiness" and the publication of many new instruments for measuring the educational development of young children. There was also more focus on cognitive development, more diversified programs for preschool education, and wide concern with the effects of cultural handicaps on the child's ability to profit from school instruction during this same period, (Anastasi, 1982). Today, ambiguities in the definition of school readiness, and the assessment of its dimensions and debate over the factors that influence it continue unabated (Kulberg & Gershman, 1973). Significant changes in the meaning of school readiness have occurred, reflecting changing models of human development and the changing policies of the educational and political institutions within society (Hsia, 1975).

Traditionally, readiness has been conceived to derive from maturation, i.e. to be predetermined by heredity and independent of learning. Because of the work of Gesell and other child development scientists, many educators have accepted the notion that a child will not be successful in learning until he has reached a requisite stage of development, meaning until he is ready (May et al. 1984). Reaching this appropriate level of maturation is,according to Ilg & Ames (1965), a matter of inner forces rather than of external stimulation. There are others, however, who hold that school readiness is dependent almost exclusively upon the experiental background of the learner. Bruner, for example, holds the extreme position "that the foundations of any subject may be taught to anyone at any age in some form" (1960, p. 7), thereby suggesting that a degree of readiness is always present. Between the two extremes, a new conception of

readiness is evolving: development is seen as a process of ongoing interaction between organism and environment in which the influences of both the genes and adaptations to the successive sets of environmental circumstances participate. 'Readiness' is viewed as a product of past child-environment interaction, a hierarchial conception of psychological development combined with the demands of the culture (Hunt & Kirk, 1974). Few behavioral scientists doubt the possibility of significantly altering the course of cognitive development through variations in experience (Bloom, 1964). This belief is clearly outlined in the introduction to CIRCUS, a series of assessment instruments prepared by ETS for use with preschool and kindergarten children :

> During the earliest years of education, two factors are controlling the advancement of each child: (a) his body and mind are physiologically

> maturing at a certain rate; and (b) his environment is providing him with certain opportunities for self-learning and guided-learning experiences. If a child is maturationally ready and environmentally prepared, then the acquisition and use of new information can be both challenging and fun. However, if the child is unready and unprepared, then learning is at the best boring, and at the worst, something to be avoided. (CIRCUS, 1973, p. 1)

Conclusion

The above review has presented the major trends and developments in the field of preschool assessment: from a purely intellectual to a developmental perspective, one encompassing the "whole child"; from a maturational hereditarian view to an interactional child/environment view; from a one-factor theory of

abilities to a hierarchy of structural changes and abilities which can branch in several directions. All this illustrates a move away from a strictly normative, uni-dimensional approach to a process oriented multi-dimensional assessment, which dominates the field at present.

Issues and Problems in Assessing Preschool Children

Preschool screening and assessment for the early detection of learning problems and placement in special programs is a popular topic, with numerous opposing philosophical stands on the issue of early screening in general (Reynolds, 1979). Many though not all of the arguments in opposition to preschool screening are similar to the arguments against assessment in general. Some of the issues raised, such as the criteria for a "good" assessment, are relevant to the

evaluation of all populations.

Still, preschool assessment presents unique problems and special challenges to the psychological assessor. These problems arise from the nature of development itself and from the characteristics of preschoolers themselves.

A major limitation of developmental screening lies in the nature and complexity of the developmental process. According to Honzik, the development of mental abilities in infancy is rapid and not easily measured (Honzik, 1976). Moreover, the rate of development of a particular ability is not necessarily consistent over time, nor does the rate of development in one area necessarily parallel the rate of development in another area. Yarrow, Scott & Waxter (1973) regard as "primitive" the concepts and methodology used for handling the dynamic interplay among the variables making up growth. Growth is seldom simple; it is

highly interactive and seldom occurs at a constant rate. These observations suggest that the "range of normal" in young children is not easy to define, and account for the difficulties in predicting future functioning (Leichtenstein et al., 1986). In short, the complexity of the process of development makes it difficult to measure and even more difficult to predict. Most if not all of developmental assessment instruments provide information of extremely limited validity, and few describe the relationship between screening data and later school performance (Lewis, 1976; Meisels, Wiske, & Tiunan, 1984; Yang et al., 1975).

Raths & Katz (1975) contend that it is generally very difficult to create test items of high quality and to display them with clarity as well as style. The challenge is even greater when developing items for young children. Preschoolers can be very

difficult to assess because they often do not have well - developed verbal, expressive skills, are frequently struggling with separation issues, do not sit with rapt attention at a table for an hour or more, and more often than not, are not very concerned with compliance in order to please the examiner (Meier, 1973). The psychological examiner must above all be flexible, have a repertory of measures and approaches from which to select, and be adept at capitalizing upon the situation presented by the particular child (Lidz, 1983). Chew & Morris (1984) list some of the difficulties inherent in large scale screening of preschool children as being the amount of test administration time involved and the need to tap the optimum potential of children who may deviate from the average middle-class child. If they come from socio-economically deprived homes, children who are shy or withdrawn or who have

certain learning difficulties, (i.e. a short attention span), often have difficulty following test directions in a group administration. Additionally, they feel threatened by the nature of some tests. These factors may add to the child's test anxiety and interfere with the validity of the results.

In view of the difficulties mentioned above, the literature raises and discusses the following questions with respect to preschool measurement and evaluation: (a) Should children of preschool age receive psychological assessment? (b) If so what are appropriate targets of such an assessment? Is measurement of these targets possible? (c) What are the components of an optimal assessment at this age? Are measurement instruments used appropriately? (d) Should adults working in preschool assessment be themselves

measured and evaluated? (Goodwin & Driscol, 1980; Lichtenstein et al., 1986; Lidz, 1983; Reynolds, 1979).

Should preschool children be assessed? This question is raised not in doubt of benefits that would accrue from identifying children likely to experience school failure, but rather in objection to the effects of misdiagnoses resulting from the use of imprecise definitions and marginally reliable diagnostic instruments. The use of such instruments may result in the assignment of inappropriate disability labels to non-handicapped children (Mercer, Algozzine, & Trifiletti, 1979). There is much concern expressed in both the popular and professional publications about the possible negative consequences of such labelling (Hobbs 1975; Ross 1974). The only real justification for assessment at any age is to be able to anticipate and remediate problems as early as possible (Keogh &

Becker; 1973), a much more crucial task when dealing with very young children since the evidence suggests that early intervention efforts are often associated with reduced incidents of referrals for special education and mental health services at later ages (Lidz, 1983). Thus, there is some basis to justify the decision to assess preschool children and to intervene in the lives of some. Even writers most critical of existing procedures seek alternatives rather than calling for abstention from the measurement of young children. (Goodwin et al., 1980).

What should we assess? What areas of function should be specified as targets of assessment? A clear "who" and "why" would allow operational details to fall more readily into place (Leichtenstein et al., 1986). Previously, verbal and nonverbal G testing were the dominant targets of assessment; there is a call now for change, a move away from the narrow spectrum

of G testing to the broader field of factorial abilities. Meyers & Dingman (1960) declare that if these abilities, called factors, are differentiated and described, one can make efficient measurement of whatever attribute one chooses or needs for a specific purpose. Escalona (1973) asserts that what is lacking is a behavioral ecology, a comprehensive view of the totality of events and circumstances that form the matrix of normal development. Therefore, one needs to move away from relying on one competency in evaluating children and include multiple competencies and both process and product variables (Lidz, 1983). Mercer (1974) considers the right to be evaluated as a multidimensional human being one of the five interrelated rights of children with regard to psychological assessment. Another question arises,"Is measurement possible?" Few educators ask if measurement is easy with young children. The problems of testability at

the preschool age have been previously discussed.

The quality and kind of preschool assessment instruments used is another important issue frequently discussed. Reliability and validity of assessment instruments assume special importance with young children, particularly the issue of reliability. Flapan and Neubauer (1970) noted that in their study "many children showed symptoms that did not appear to be enduring or pervasive" (p.95). Murphy (1962) elaborates on this issue extensively, saying that "the child may vary from hour to hour, day to day, week to week, tester to tester, or test to test" (p. 369). The poor predictability of IQ from infant test to later ages is one of the most documented conclusions in psychology literature (Knoblock & Pasamanick, 1974; Bayley, 1969). The lack of adequate psychometric properties, as evident from the low reliability and poor predictive validity of the assessment instruments

used has led many educators to caution against their use. Misdiagnosis, labelling, and identification errors are common hazards in the field of assessment (Hobbs, 1975). In addition to the extensive research done to improve the psychometric properties of these instruments, Mercer (1974) insists on preserving the following two rights of children: (a) the right to be evaluated within a culturally appropriate normative framework and (b) the right to be free of labels, placing emphasis on the need for a more complete description and understanding of children.

The last issue covered in this review relates to the question of who shall assess? Contrary to the other issues discussed, a consensus of opinions regarding this issue does exist. For adequate assessment, the expertise of professionals from a number of disciplines is needed (Leichtenstein et al., 1986) and there must be high standards for the professionals engaged in the

diagnostic and programming processes. Specialized course work and supervised experiences with children are needed, and expertise in this area cannot be assumed from general training in assessment theory and methodology (Lidz, 1983). In addition to the challenges and demands that preschoolers present to the assessor, young children from disadvantaged backgrounds, whether culturally "different" or similar, have their special assessment needs too.

The problems of prediction, reliability, and validity cited above, the potential hazards of labelling and classification, and the dissatisfaction voiced with the lack of information yielded by traditional assessment instruments and approaches--all stress the need for change. The nature and direction of this change is summarized below, in the last few pages of this chapter.

Current and Future Trends

1. The majority of the new tests have not been designed to test all aspects of mental development in infancy; they have been designed to fulfill particular purposes and measure specific types of behavior. Cognitive, social, sensorimotor, and language skills were all translated into tests. This diversity represents a movement away from the notion of general intelligence to an emphasis on specific behaviors and skills as possible predictors of later development (Brook - Gunn et al., 1983).

2. There is an increase in the number of variables or factors that are measured. Variables dealing with cognition and with process and product are gradually receiving more emphasis. (Goodwin et al., 1980). There is also an increasing emphasis on criterion-referenced measures rather than

norm-referenced (Abbot & Crane, 1977; Lidz, 1977). The main goal of assessment is not seen as the estimation of "basic intelligence" or the diagnosis of problems, but as a guide for teaching, an outline for action, for decisions and for programs (Gordon, 1986; Hunt, 1975) With this dynamic view of assessment, criterion-referenced measurement answers the demand for detailed awareness of specific objectives reflecting a specific environment

3. There is a broader conception of the types of measures appropriate for the field and a trend towards the use of several types of measures: tests, observation system, rating scales, etc. (Goodwin et al., 1980; McReynolds, 1968). Such techniques are often more useful than standardized measurement in early childhood settings because they can be used unobtrusively

and can yield information that norm-referenced formal instruments cannot obtain.

4. There is also an increase in emphasis on the fair and rational interpretation of results from tests. Test scores should not be viewed as absolute or even approximations of true scores, rather they should be regarded as relative indexes requiring interpretation. A score is only one indicator and not an end in itself. There is also a shift away from a search for a culture-fair test and toward a culture-fair interpretation (Goodwin et al., 1980). According to Mercer (1974), every child should be accorded ethnic identity and respect; the various assessment instruments should recognize the value of different cultural traditions.

5. With the increased emphasis on assessment of the

young child in both cognitive and affective development, there is an increased trend to develop teachers' skills in both selection and interpretation of assessment techniques. Teachers are provided with the opportunity to develop measurement skills so that measurement techniques can be used to the greater benefit of children (Abbot et al., 1977). Also with the increased public demand for accountability, there is a trend towards the continuous evaluation and training of the assessment staff in early childhood education programs.

CHAPTER III

The Preschool Child

Introduction

The last 150 years have witnessed rising interest in the preschool years as the fundamental years, first in the cycle of life, which need to be studied and understood. Both in scope and speed, the transformation of children in the preschool years exceed that of any other half decade.

The Preschool child interacts with an expanding world of people and things. He is no longer a baby, but at the same time he should not be considered a miniature school child. He has his own distinctive developmental needs and hygiene. The hygiene of the preschool child must be conceived in terms of growth (Gesell, 1971). His manifold patterns of behavior grow so rapidly and undergo such ceaseless continuous

transformations that there are few absolutes to guide our understanding of him. In Gesell's words, "The preschool child is constantly shedding habits or modifying them; his 'intelligence' is a dynamic end product of multiple, changing factors; his abilities are all relative to one inclusive ability, namely, the ability to grow" (Gesell, 1971, p. 7). Despite the difficulties involved in defining growth, and in order to provide the preschool child with favorable social conditions, the behavior characteristics and the developmental requirements of the preschool child must be defined.

The next few pages define the steps and stages that a child goes through in his developmental transfromations and more specifically, characterize ascending levels of maturity in terms of typical behavior patterns. Such characterization will hopefully provide a series of portraits outlining the

directions and stages of the preschooler's growth, particularly in the areas that the Lebanese Preschool Readiness Test (LPRT) aims to assess. Included in the LPRT are 4 major fields of behavior, namely (1) Motor, (2) Conceptual, (3) Language, and (4) Memory. However, and in order to present a more complete picture of "the whole child", the physical and personality growth of the preschooler will also be briefly outlined.

Physical Development

Normal physical development is important in itself, but it is also important for the development of intellectual, social and emotional skills. Physical mobility is needed for the exploration of the environment, and both Piaget (1955) and Bruner (1974) have noted and described the importance of early skilled action for normal development. Physical development includes both physical growth and the

development of motor skills. These two components are interrelated,but they will be discussed in separate sections.

The physical growth of the preschooler is slower than it is during infancy, but he is still growing faster than he will in the years that follow this period; the growth rate in both height and weight decelerates slowly throughout the preschool period. Boys are slightly larger than girls, but girls are closer to maturity than boys. Appearance and proportions change from the chubby baby like configuration to the more slender, childish pattern as a result of changes in the amount and distribution of fat and in the growth of muscle and skeletal tissues. Evidence of changes in the nervous system is more in terms of function and structure than of size. The structure of vision is immature as the macula of the retina is not completely developed until about the age

of 6.

Social (Personality) Development

In the early years, the young child is developing skills in interacting with different people in a variety of social contexts-- with parents, caregivers, teachers, and other children; at home, at school, and in the neighbourhood. The young child is gaining impressions about people and also developing a sense of self. This sense of self consists of his knowing who he is, how he would like others to think of him, and how others seem to think of him (Lawtton, 1988).

One dimension of social development is acquiring values and attitudes that will guide social behavior. Young children find it difficult to understand the

rules of games and do not yet find it easy to share possessions with other children or to take turns in activities. They may sometimes show a lack of concern for others' feelings because they are not yet tuned in sufficiently to the points of view of others. At this stage, parents and teachers can strongly influence children's developing social behavior. During the preschool years, children can make impressive strides in developing prosocial behavior.

Freud (1935) described social (personality) development in terms of the child's growing ability to control strong emotions such as love, fear, and anger.

According to Erikson (1963), normal social development results from the child's success in resolving conflicts. The 2- and 3- year-old child's greatest need is to assert his independence and to develop a sense of autonomy. He is in the "me do it" stage, and if he is permitted to "do it", the child

has the chance to begin taking steps in organizing himself as a learner (Day, 1987). It is the stage in which Benjamin Spock says the child asks himself, "Am I a man or a mouse?" It is the age of "no" and frequent "contrariness", but out of which this is born an independent individual capable of feeling "I am someone". Erikson's 3- to 5- year-old preschooler is busy developing a sense of initiative. At this point, he is actively exploring and investigating, asking questions, thinking new thoughts and trying himself in all kinds of ways. The child uses all of his senses as he explores and discovers and makes things happen. It is a period of learning by doing (Day & Parker, 1977).

Piaget (1932) and Kohlberg (1971) have described social development in terms of the development of moral reasoning. By acting on and interacting with social contexts, the child comes to understand social rules. Preschoolers tend to judge the rightness or

wrongness of actions by the results rather than the intention of acts.

Motor Development

Motor development for young children involves two important areas of motor co-ordination: movements controlled by the large or gross muscles and movements controlled by the small or fine muscles. In fact, the first 5 years of life are largely concerned with the elaboration of native reactions into a large variety of gross and fine motor skills.

Although the motor domain of child development is less obvious in its relevance to the study of preschooler than language or intellectual processes, there is every reason to consider the domain. Little children run and jump and use crayons; they hop and skip and engage in muscular activities, large and small. Such activities are as much the business of

childhood as the skills which foreshadow degrees of competence in the later series of school tasks of middle childhood(Jordan, 1980). The development of good motor skills, both gross and fine, is fundamental to overall development and essential for good learning. The child who has poorly developed motor skills will have difficulties in trying to adjust to the varied demands of the environment (Curtis & Wignall, 1981).

Proceeding through a fairly stable sequence of patterns, motor development between the ages of 2 and 5 results in a child who moves and manipulates more like an adult than like the toddler he used to be. Individual children differ in the speed of sequential development as well as in the quality of performance, as shown in their speed, power and accuracy (Smart & Smart, 1978).

Gross Motor Skills. Gross Motor development in the preschool years is characterized by the appearance and mastery of a number of fundamental motor skills. These gross motor skills include (a) body projection, (b) body manipulation, and (c) object manipulation skills.

Body projection skills like running, jumping, hopping and skipping focus on the use of the large muscle masses of the body in moving the total body horizontally through space. Body manipulation skills, on the other hand, have to do with moving the body and/or body parts within a well-defined but small area of space and include stretching, bending and balancing. Object manipulation skills include throwing, catching, striking, kicking, and ball bouncing (DeOreo, 1980). Not all of the skills included under the heading of motor skills are addressed here. The discussion focuses on the skills

covered by the LPRT, namely those of walking, running, jumping, hopping, skipping, throwing and catching of objects, and balancing.

Walking : A 2-year-old child can balance in walking and should be able to walk upstairs alone placing both feet on a step. An older 2-year-old may be able to alternate feet going upstairs, but he will walk down two feet on a step.

A 3-year-old walks in an adult fashion swinging his arms. He has mastered walking to the extent that he no longer needs to watch his feet or balance with his arms. He can walk upstairs with alternating feet unaided although most 3-year-old put two feet on a step coming down. Their balance is good enough to allow them to walk a straight line, one foot in front of the other, and to walk backward with ease.

A 4-year-old has control of and takes great

pleasure in using his body. Children aged 4 can walk confidently in many ways: forward, backward, tiptoeing, etc. Most can walk both up and down stairs alternating their feet. (Flinchum, 1975).

A 5-year-old can do all the things performed by the 4-year-old but with greater facility and abandon, and he requires less supervision.

Jumping: This skill involves projection of the body into the air from a take-off and landing on two feet (Cratty, 1970; Espenschade & Eckert, 1980). By the age of 2, children make their first jump off the bottom step with 2 feet. A 3-year-old can be good if allowed to practice, a 4-year-old is a much more proficient jumper; and by 4 $\frac{1}{2}$, most children can accomplish any type of jumping, and the second step from the bottom of the stairs is now their big challenge. At the age of 5, children are long, high, far jumpers if they are given practice (Caplan & Caplan, 1983).

Hopping: It is the large motor "bouncing" skill in which the child takes off and lands on the same foot (Beaty, 1986). Normally, children hop by the age of $3\frac{1}{2}$ as they require balancing and jumping skills to hop. Hopping is not well developed in most children before age 4. When he is $4\frac{1}{2}$, a child can hop only 4 to 6 steps on one foot, but by the age of 5, he can hop a distance of 16 feet. There are noticeable gender differences in hopping with girls performing better due to encouragement and better opportunities (Beaty, 1986).

Skipping: This skill involves the projection of the body through space by a combination of a step and hop on one side followed by a step and hop on the opposite side (Williams & DeOreo, 1980). Skipping progresses from a shuffle, to skipping on one foot, to skipping

on alternate feet. A 5-year-old child can skip with alternate feet, while average 4-year-olds cannot do it with both feet; most can do it only with one foot (DeOreo, 1980).

Balancing: Balancing denotes the ability to maintain the body in a state of equilibrium whether stationary or moving (Williams & Breihan, 1979). At 30 months, the child first attempts to stand on one foot, and at 3 years he can hold this position momentarily. By 42 months, he can hold it for 2 seconds without help. By the age of 4, the child has acquired strength, ease, and facility in the use of his legs, and he can take pride in attempting motor stunts requiring delicate balance. He can maintain his balance on one foot for 4 to eight seconds (Gesell, 1971). Indications of the 5-year-old's mature sense of balance are seen in his ability to stand indefinitely on one foot.

Throwing Objects Overhand: Throwing objects involves the ability to project an object through space with some degree of speed and accuracy (DeOreo, 1980). It involves visual localization, stance, displacement of bodily mass, reaching, release, and restoration of static equilibrium. Zaichkowsky, Zaichkowsky, & Martinek (1980) note the following patterns in the development of throwing; 2- and 3-year-olds throw mainly with their forearms, using little or no footwork or body rotation; 3 $\frac{1}{2}$-year-olds throw with more body rotation and arm range. The fingers, which at first function only inadequately, gradually assume a major part in directing the course of the object (ball); 5-year-olds start to throw with a forward step on the same side as their throwing arm. Trunk and leg movements are incorporated into the throwing activity and take on increasing importance.

Catching Thrown Objects: Unlike throwing objects, this skill refers to the ability to stop and control aerial objects . It is more difficult for preschool children to accomplish, because in addition to having upper body maturity, children must possess eye-hand co-ordination in order to be successful in catching thrown objects with their hands. Those who are 3 and 3 $\frac{1}{2}$-year-old are still at the stage of "trying to catch" mainly by holding their arms straight out in front of their bodies. They are only successful if the ball is large and thrown directly into their arms with little force. Even 5-year-olds catch a chest-high ball only 60 to 80 percent of the time (Cratty, 1982). This activity requires practice and nervous system maturity.

Fine Motor Skills.

Fine motor development involves the fine muscles

that control the extremities. Of special concern to this study are control, co-ordination, and dexterity in using the hands and fingers. A number of factors enter into the evaluation of fine motor abilities because many underlying sensory, motor, and perceptual functions must be adequate to ensure that fine motor performance will be co-ordinated. Of prime importance is the presence of perceptual-motor skills involving the ability to perceive and attach meaning to sensory input and the use of that information in carrying out gross and fine motor acts. Individuals must be able to pay attention selectively and to be ready to respond to those sensory stimuli that are important to their functioning at the moment. The ability to attend to a stimulus depends on the condition of the individual's sensory receptors, on effective sensory transmission, and on appropriate internal sensory processing (Weeks & Ewer-Jones, 1983).

Hand function can be analyzed in terms of grasp and pinch strength, joint range of motion, coordination, and patterns of gross grasp and fine apprehension. Coordination or dexterity may be tested through the use of pegboards, manipulative items, handwriting, eye-hand co-ordination tests, finger movements, and so forth (Caplan et at., 1983).

Fine motor skills tested by the LPRT include block manipulation, puzzles, drawing, paper folding, and cutting with scissors. A brief description of a preschoolers normative behavior with respect to these skills will be presented in the next few pages.

Block Building: Space is an abstract concept; young children cannot represent space mentally until they experience "enclosure". Block creations offer a fine way to witness whether children have mastered this concept (Osborne & Osborne, 1983).

Two-year-olds usually mass blocks , carry them

around, fill up containers with them, and dump them out, but they do not build with them. Somewhere between the ages of 2 and 3 real building begins. It involves stacking blocks up into a tower or lining them up in a row, and a child at this age can build a tower of 7 blocks in one of 3 trials. A 3-year-old can build the tower in response to verbal directions without viewing the model.

Another task in this area is train building, which combines vertical and lateral alignment of the blocks. Two-year-olds put the blocks in a row, but do not add the chimney; Three-year-olds build trains with the chimney (Johnson, 1974).

Then the children are faced with the problem of "bridging", or using a horizontal block to span the space between 2 upright parallel vertical blocks. A 2-year-old child can't build a bridge, while a 3-year-old can build it when its construction is

demonstrated. The 4-year-old child can build the bridge merely if given the model (Werner, 1980).

Puzzles: Many young children see parts as separate entities in themselves and do not see the relationship of parts to a whole. Three and 4-year-olds are just at the beginning of this organizational aspect of their knowledge. The most common way of identifying part-whole relationships is through the manipulative activities of making puzzles or putting together take-apart toys. This ability can be tested by asking the child to put together simple picture puzzles of commonly known objects in a specific time frame. The child must comprehend the verbal directions, understand the term for the object presented on the puzzle, visually perceive the relationship of the colors and lines of each segment to the others , and use fine motor coordination and dexterity to assemble the segments.

Drawing: The preschool child is usually an enthusiastic artist. Given a pencil or crayon, he will occupy himself for relatively long periods. From about the age of 2 through age 3 and 4, and sometimes later, a child will mark on paper in a scribbling manner. At first, the scribbles may be endless lines "drawn" in a rhythmic, manipulative manner. Eventually, the child will use eye contact as well as hand/arm movement to make the scribbles and to direct their placement on paper (Kellog, 1970). The scribbling marks of the 2-year-old tend to be circular rather than vertical or horizontal; the 4-year old's product,on the other hand, takes on form and meaning, while the 5-year-old's drawing is clearly recognizable for what the child names it to be (Beaty, 1986).

Another drawing skill is that of imitative markings or copying of forms. Below the age of 3, a child is unable to copy, so the examiner testing this

skill must begin by demonstrating the marking tasks, which consist of making vertical, horizontal and circular strokes, a cross and a square. In the first case, a 2-year-old imitates a vertical line usually on the first trial even though his first marks are likely to be oblique and slightly curved. A 3-year-old invariably makes the vertical line. Where the horizontal stroke is concerned, a 2-year old can make either a vertical or a horizontal stroke, but he is more likely to make a vertical one. As with the vertical stroke, the 3-year old makes a well-defined horizontal stroke. With the circular stroke, many 2-year-olds don't make a circular stroke while 3-year-olds can imitate a circular stroke. This form seems innately appealing to young children everywhere, perhaps because of their preferred attention to the human face (Smith, 1982). In the case of the cross, a 3-year old easily imitates the drawing of a cross,

while a 2-year-old makes a vertical line, and then proceeds to make another vertical or oblique line or just scribbles beside it. With the square, 3- and 4-year-olds first create squares by drawing a set of parallel vertical lines and then adding horizontal lines at the top and bottom rather than drawing a continuous line for a perimeter (Smith, 1982).

Pictorial drawing eventually evolves out of particular combinations of shapes. One of the first representations to occur in children's art is the human being. This representation seems to evolve naturally from the child's first experiments with an oval shape with a cross inside it, leading to an oval with lines radiating from its rim, which then evolves into an oval with 2 lines for the arms, 2 for the legs, small circles inside the large head/body oval for the eyes, and sometimes a nose and mouth. Kellog(1970) noted that all children everywhere seem

to draw their first humans in this spontaneous manner. They draw what they know to make and not what they see. Thus, a 2- to 3-year-old makes scribbles on top of the other when asked to draw a man, with no differentiation of parts at this age. The 4-year-old drawing of a man begins to take on definite form. The head is represented, the eyes are usually differentiated, and the legs are usually drawn too. The 5-year-old draws an unmistakable man. The man is drawn with a body, arms, legs and feet. The mouth and nose are indicated as well as the eyes. The pictorial drawing skill is very significant as a high degree of complex abilities is involved in it (Weeks et al.,1983).

Use of Scissors: Learning to cut with scissors takes a great deal of co-ordination and practice. Children who have had practice with this activity may be ahead of those who have not, regardless of age. Most 4-year-old

can cut along a straight line without difficulty, but may have trouble cutting corners and following a curved line.

Paper Folding: This task reveals the maturity of manual coordination. A 2-year old turns the edge of a piece of paper over, but he does not necessarily crease it. The 3-year old folds the paper twice, creases it, and may attempt the third fold. The 4-year old folds the paper 3 times and creases it (Caplan et al., 1983).

Cognitive Development.

The second major field of preschool behavior covered by the LPRT is that of cognitive development. Cognitive ability covers all the processes by which sensory input is transformed, reduced, elaborated, stored, recovered and used (Neisser, 1967). Younger children, in their mode of operation, carry on the processes of thinking, imagining, and language

simultaneously. They exhibit these abilities in a less differentiated manner than adults and older children, reacting more globally, more as "wholes". The raw material for thinking, imagining, and language is perceived through the senses, and the child eagerly seeks sensory experience. He eagerly touches objects, enjoys color, and experiments with sounds (Smart et al.,1978). Perceptions dominate the young child's thinking. He becomes greatly influenced by what he sees, hears, or experiences at a given moment. The development of speech gives the child a new tool for remembering and storing impressions from his experiences (Day et al.,1977).

According to Piaget (1967), a preschool child is in the pre-operational thought period, just beginning to build mental structures that will eventually result in logical thinking or operations. While he is quite egocentric when compared with older children with

respect to both space and roles, the child progressively decenters with the acquisition of cognitive skills and knowledge.

Conceptualization: One indication of a child's level of cognitive development is his conceptualization, or the ability to construct knowledge or explanations about his world through classification. As the young child interacts with people and objects in his environment, his brain is hard at work organizing experiences and paying attention to relationships between things. In order to make sense of the world,he classifies these relationships into concepts of class, time, space, number, size, shape, and color. The development of these concepts is from the concrete to the abstract. The first concepts are concrete, tied to definite objects or events; through repeated experiences, the child develops abstract concepts

(Goths, 1973, de Vielliers & de Vielliers, 1978.)

The child's ability to conceptualize and form relational decisions is necessary at the preschool level in order to help him (1) follow directions and understand instructions; (2) comprehend stories; and (3) communicate with others (Boehm,1983). The child's understanding of various concepts is demonstrated through action, through the manipulation of objects, and in response to pictured situations. The LPRT tries to assess the preschoolers notion of form, color, positioning and size.

Form Discrimination: The concept of shape is one of the first concepts to emerge in the child's cognitive development. He needs to distinguish between circles, squares, and triangles, to categorize mentally, and to distinguish among objects in the environment (Beaty, 1986). In this task, the child has to

distinguish from among an array of forms the one that matches the form presented, or he has to put blocks of varying shapes in their appropriate holes. With respect to the 3-hole formboard, 2-year-olds can easily insert the blocks, in less than 1 minute, while 3-year-olds solve the formboard in less than 30 seconds. With respect to form matching, a 2-year-old cannot match any forms, at 30 months a child can match 1 form, while at 3 years he can match 3 forms. The circle is the easiest of the forms for a child to match.

Color Discrimination: Children develop color perception shortly after shape recognition, although they seem to talk about colors first. Many 3-year-olds and most 4-year and 5-year-olds can classify objects according to color.

Preposition Discrimination: The preschool child starts to respond correctly to commands on positioning involving the prepositions in, on, under, in front of, behind, etc... To perform this task, children need to have constructed mental images of the position of things, their closeness, and the distance between them, as well as to have understood the meaning of the spatial prepositions used. Children must have developed physically before they are able to make sensory explorations of the objects in the environment. They also need the mental maturity to convert this perceptual knowledge into cognitive concepts. Children finally need language development and experience to put words to these concepts. Children first learn nouns, then action verbs. Since prepositions are more abstract, representing a location instead of a thing, they are more difficult to learn; children must learn the concept of location

in space by experiencing the concept. Therefore, children's understanding of some prepositions in the preschool years remains limited and incomplete (Osborne et al., 1983). In general, however, 3- to 4-year-olds can respond correctly to at least 3 of the simpler commands (on, in, under, behind, and in front of).

Other concepts (Size, length, weight, and speed): Size is the easiest of the concepts to be understood by the preschooler. There are various orders of size, usually thought of in terms of opposites: big-little, large-small, tall-short, long-short, wide-narrow, thick-thin, etc... A 3-year-old can classify according to big-little and long-short, although not so often in the case of the latter. Four-year-olds make no errors in their choices with respect to these 2 sets of concepts. With respect to weight comparisons, the average 3-year-old does not respond correctly, while

the average 3 $\frac{1}{2}$-year-old responds correctly in 2 of 3 trials, and the majority of the 4-year-olds select the correct answer .

Recent Developments. The developmental psychologist's portrait of cognition during the period of early childhood used to be rather negative and unflattering. For example, the thinking of preschool children was often characterized as "preoperational", or even "preconceptual". However, recent research has shown that an impressive number of fragile but nonetheless genuine competencies have been acquired by the end of this period and that a young child's mind is more coherent, better organized, and generally less confused than it was thought to be. It seems that the young child's abilities were underestimated, the result of a lack in sensitive diagnostic tools (Flavell, 1985).The cognitive

attainments of young children include a variety of knowledge structures that assist them greatly in predicting and making sense of their everyday worlds (Mandler, 1983). They gradually build up scripts for representing and anticipating the usual sequence of events in preschool, at bedtime, and during other familiar routines. Preschoolers also have well-developed schemas for what familiar classes of objects and places look like. In past years, several theorists have claimed that the nature and organization of young children's mental categories differ qualitatively from those of adults. However, recent work (Flavell, 1985) suggests that here as in other areas of cognition the differences may not be that radical, and that a young child's representations of hierarchies and relations are not fundamentally different from those of their elders. In addition, recent research (Gelman, 1982) on the development of

basic numeric abilities has indicated that preschoolers possess more knowledge and skill in the domain of number than the earlier work of Piaget had suggested and that these abilities may have developmental roots and origins during the first year of life. These and other findings have led Gelman (1982) to suggest that, like language skills, basic numeric skills may be natural and universal human abilities that humans are predisposed through evolution to learn and do.

The results of these studies have led to some uncertainities and perplexities about childhood cognitive development as well as to, the rethinking of the previous beliefs on this subject.

Language Development

Of all the cognitive achievements of young children, none is more impressive than the acquisition

of language. What is especially striking about language acquisition is the speed with which it typically occurs, almost irrespectively of the general intellectual competence of the child (Eysenck, 1984). There seem to be great similarities in all human societies in the sequence of language development, as children progressively master the rules of sounds, of words, and of meaning, and learn to combine words in ways which are meaningful and understandable within their language community (Smith & Cowie, 1988). The milestones of language acquisition follow a regular sequence that is linked in time with the milestones of motor development. Thus, language, like motor development, has a strong maturational base (Lenneberg, 1967).

When children first put words together, which they do at the end of the sensorimotor period, they talk about the sensorimotor world. As children develop

during the years between infancy and school age, the meaning and content of the language they use change, keeping pace with the children's personal growth and developing knowledge and understanding of the world (Schachter, Kishner, Klips, Friedrichs, & Saunders, 1974).

Every child starts with an inherited potential for acquiring language that is part of human nature (Chomsky, 1968). While acquiring language, the child internalizes a set of rules that relate sound and meaning in a particular way. The child cannot state the rules; he just operates according to them (Bryen, 1982). These rules are acquired at the different stages of development outlined in the next few paragraphs.

Stages of language acquisition.

Ages 2 to 3 years: This period is a period of

transition. The one-word sentence and the short and stereotyped combinations which have been characteristic of earlier stages of development are still common, but longer and more varied combinations are on the increase The child is producing 3 and 4 word utterances regularly. Any sentences that he produces are in a strict sense "ungrammatical" but reveal that the child is using grammatical, i.e. ordered, rules of syntax. By this stage Jargon has almost universally dropped out. After this, there is a rapid increase in grammatical rules and in speaking vocabulary (Smith et al., 1988). Pronouns, plurals, prepositions, and irregular verb endings begin to be used, often correctly. The "wh"-questions are formed, though often in an unorthodox form.

Ages 3 to 4 years: Towards the age of 3, the progression towards functional integration between

language and the total behavior of the child takes place. This step marks the most outstanding change in language behavior, aside from the quantitative development of vocabulary and complexity of sentences. Although language is still a new and imperfect instrument, the fundamentals upon which the imposing structure of later years is to be built has become mostly present. Vocabulary is extensive (about 1,000 words), and long sentences including compound and complex structures are common; tense, moods, and parts of speech are distinguished, however, imperfectly . Reasonable conversations can be held although they tend to be rooted in the immediate present. From 3 years on, language maturity must be estimated on the basis of its relationship to the total behavior patterns of the child and in terms of the relative complexity or difficulty of the situations which can be dealt with verbally (Gerber & Bryen, 1981).

The age of 4: Compared with other stages of preschool development, the age of 4 may be described as the flowering period of language. The 4-year-old talks about everything, plays with words, questions persistently, elaborates simple responses into long narratives, comments with approval on his own behavior and criticizes that of others (Lindfors, 1980). The child's language spreads out beyond the egocentric or immediate situation.

The age of 5: The 5-year-old has acquired the ability to use language efficiently and has begun to have a sense of the social standards and limitations with respect to its use. He has begun to understand the passive form of the verb though not yet to use it (Bryen, 1982).

Language assesment paradigms. Keeping in mind the various stages of language acquisition, formal language testing paradigms are classified according to the performance tasks required of the child: (1) elicited imitation, (2) comprehension of tasks, (3) manipulation of objects, (4) picture identification, (5) language completion, and (6) sample of spontaneous language used by the child (Bryen & Gallagher, 1983). The LPRT language scale covers most of the above mentioned tasks. It covers comprehension, picture identification, and to a lesser extent sentence completion and spontaneous language. Elicited imitation is covered under the Memory Scale. The object manipulation task is covered under the Concept Scale.

Personal data: The preschooler is required to give his name, age, sex and address. The 3-year-old gives his

full name easily; the norm for this task is 30 months. Children can give their sex by 30 to 36 months. With respect to age and address, no norms are available. This skill depends on the maturity of the child and on his understanding of the concepts of number, size, and space.

Picture Identification: Here the child is presented with an array of pictures and asked either to (1) point to the picture that shows the stimulus object or situation given by the examiner or (2) describe the use made of the object, or (3) to name the object. According to Miller (1978), a 2-year old can name 3 objects and identify 5 by pointing. A 3-year-old can name 8 objects and identify 10, while a 4-year-old can name all 10 objects. With respect to defining the use made of objects, this task should not be given before the age of 4, when 2 or more successes are expected. The 5-year-old can identify 5 items (Oviatt, 1980).

Another identification subtest usually used is that of identifying body parts, an easy task. Two-year-olds usually identify 4 parts and a 3-year-old should be able to identify all.

Comprehension Tasks: Here a spoken message is provided, asking children to respond in some way that can be interpreted as indicating their understanding of the message's linguistic content (Miller, 1978). Children are asked about what they will do if they are in certain situations, for example hungry, cold, tired, lost, etc... Their answer gives an indication of their fluency and understanding of the concept. Children below the age of 3 can rarely answer these questions; by 3 they usually can answer 1 question and by 42 months 2.

Development of Memory

Age is a powerful variable when investigating developmental changes in memory functioning. One can

take almost any process involved in the storage and retrieval of information and find that there is a systematic improvement in the utilization of that process during the years of childhood (Eysenck, 1984). It is still not clear which developmental changes are the most consequential for memory, but the most fruitful approach is to regard the processes of memory as interdependent.

The preschool child has no awareness of memorizing or "planfulness" to do so. Memories are laid down spontaneously as by-products of actions and experiences. Young children of 3 have a good recognition memory which increases with age (Permutter & Myers, 1974). Steady increases in recognition were seen for both concrete and abstract pictures and concrete and abstract words, with concrete items being recognized more easily than abstract items (Bronson & Black, 1973).

The LPRT measures 3 aspects of the recall and immediate memory, namely (1) Numeric Memory, (2) Verbal Memory, and (3) Pictorial Memory.

Numeric Memory: Below 3 $\frac{1}{2}$ of age, the digit repetition does not have sufficient significance as a child repeats 2 or 3 digits on one of 3 trials only. By age 4 however, number concepts begin to develop and digit repetition takes on meaning. A 4-year-old can repeat 3 digits on 2 out of 3 trials.

Verbal Memory: It requires the child to repeat lists of phrases or sentences spoken first by the examiner. These sentences vary in grammatical structure and complexity. The LPRT tests immediate memory and faulty articulation. Two and 3-year-olds are more cooperative in repeating a short sentence than in repeating digits. A 2-year old can repeat sentences of 3-4 syllables, while a 3-year old can repeat sentences of 6-7 syllables. A 4-year old can repeat 12-13

syllable sentences on one of 3 trials, while a 5-year-old can become more proficient in his sentence repetition (Castner, 1971).

Pictorial Memory: A picture card with one object is shown to the child for a few seconds, and then another card is presented which contains pictures of 3 objects, one of which is a copy of the first picture shown. The child has to remember or identify the picture first presented. A preschooler's response depends on his understanding of the instructions, attentiveness, and speed.

Conclusion

In the preceeding pages, the preschooler's development and growth was outlined. Growth means change that takes place not only in a child's height and weight but also in his capacities and characteristics. As with any other profile,the

preschooler's profile presented, should look at all aspects of development (physical, social, emotional, and intellectual), since they are all interrelated. The child develops as a whole, with each area influencing and being influenced by what takes place in other areas.

A preschooler's growth takes place in orderly sequences or stages, with each successive stage depending on the outcome of the previous stages. Rates of growth differ for individual children but the sequence of stages is uniform. Age, gives us only a general indication of what to expect because children differ in the time they take to complete a stage but they do not,however differ in the order in which the changes takes place.

Keeping these points in mind will help clarify a child's behavior at a certain age. Observation of this behavior will hold more meaning if seen not as an

isolated incident but in relation to a stage in the individual's total development. A deep understanding of these stages in growth is necessary before we can respond appropriately and provide the child with an environment that will promote his optimum development in a period of rapid change.

CHAPTER IV

Early Childhood Education

Early Childhood Educatin in the West

Definition and scope. Early childhood education involves the development which takes place in the years before the child goes to school. In some instances, however it refers to any program designed for children from birth to age eight (Morrison, 1984). This stage of the education of a child focuses on the linguistic, social, cognitive, and moral growth of the child. It is an interactional, and multiply determined process that is conceived as an extension of parental child rearing or as a way of preparing children to fit into a social role. Early Childhood Education programs were developed to provide the necessary requisites for growth not available within the family, and thus are particularly dependent on the role of the parents and

community surrounding the child. Early childhood education implies a totality of development of both the child and its care givers (Baker, 1986).

Types of early childhood programs.

Many different types of programs or centers care for young children from infancy to school age, and funding for these centers may come from a variety of sources. A wide variety of arrangements and complex funding patterns exists depending on the needs and socioeconomic level of the families. Some of these programs stress social and emotional growth while others emphasize reading and other academic subjects more (Read and Patterson, 1988). But the central focus of early chilhood programs is to provide a safe, caring environment with opportunities for each child's ultimate growth (Lawton, 1988). The needs of the child should be the main concern of the adults in the

program, and respect for the individual child is the basis of a quality program.

Early childhood centers differ in their appearance and in their program offerings, as will be revealed later, but universal themes appear in all quality settings. These themes include providing opportunities to play with other children, to manipulate objects and materials, to discover what works, to make mistakes, and to imagine and create (Read et al., 1988). The different programs can be grouped in 4 general categories:

1. **Nursery schools and preschools.** These are pre-kindergarten programs for children aged 2 to 5, operated as a service by public schools, or for profit by other agencies and individuals. A preschool is usually a half-day program which emphasizes early childhood education and involves children in learning

activities.

2. **Kindergarten.** This term refers to any educational program for 5-year-olds. Most kindergartens are half-day programs, but recently much interest has been generated in Europe and the U.S.A. in the idea of a full-day kindergarten in order to provide more time for socialization, for basic subjects, as well as for subjects such as art, music, and movement.

3. **Child care Centers.** They provide full day care for children of working mothers who are not yet in schools and who are between the ages of 2 $\frac{1}{2}$ and 5. They have a connotation of custodial care, or care for the child's physical needs, but over the past decade there has been a decided shift in day care policy from merely providing care to also including an educational component.

4. **Home Care Programs.** These programs are usually conducted as a business in which an adult provides custodial and other child care services for up to eight children in his or her home. They offer long, flexible hours to accommodate the schedules of working parents. This type of care is meant to provide the child with a comfortable environment similar to his or her own home.

Historical perspective

1. **Early Childhood Education Movement.** To understand the early childhood education movement and the philosophy on which it is based, that movement must be seen in relation to the economic and social changes that have taken place in Europe and the U.S.A. in the nineteenth and twentieth centuries. For example, in England, prior to 1800, most children were cared for and educated by their families. By 1840,

many children, some as young as 5 or 6, were working in appalling conditions in factories and mines spawned by the Industrial Revolution. The Education Act of 1870 provided education for children aged 5 to 13. However, free and compulsory education for children aged 5 to 13 became available only in 1891. Nursery schools first appeared in England in the early 1900s.

In the U.S.A., prior to 1800, children were also cared for mainly by their families. Many children were employed in factories and other industries from 1790 onwards, but working conditions were never as bad as those in England. Day nurseries, began to appear in 1828 as a service to poor families, but by 1910 there were only 450. Nursery schools took over from day nurseries during the 1920s. Their emergence can be traced to a growing interest in child development and learning. They offered not merely care but also developmental and educational opportunities.

2. **Early Theoretical Influences.** A number of important philosophical ideas about childhood and methods of education emerged in Europe between 1750 and the early 1900's. These ideas, theories, and educational practices had a marked effect on early childhood programs in the U.S.A. also. Some of the people who contributed to the earlier thought and literature in Europe and the U.S.A. were:

a. Martin Luther. The modern interest in education for all began with Luther. While his contributions to early childhood education are not always obvious, he was, nevertheless, the catalyst for concern about the education of children in general. As a result of Luther's concern, educational practices applicable to young children were formulated.

b. John Comenius. The seventeenth century Moravian reformer was an advocate of universal

education that began at an early age and continued through adulthood. He believed that education should follow the order of nature. Since natural order implies a timetable for growth and learning, one must observe this pattern to avoid forcing learning before the child is capable or before the steps necessary to that learning have been taught. He emphasized making learning easier and more pleasant and on training the senses.

c. Jean Jacques Rousseau. Rousseau describes childhood as a special period of development, a critical period during which various aspects of development "flowered" according to nature's plan. He espoused naturalism in educating children, stressing the need to follow the child's natural development in learning and not force the child to do something before he is ready. Early education is the responsibility of parents at home,

who in tune with nature, are to provide the child with opportunities for learning through discovery. Specialists in the history of education point to Rousseau as the dividing line between the old and the modern approaches to education. Rousseau established a way of thinking about the young child that is reflected in innovations of educational practices, such as those of Pestalozzi and Froebel. His natural unfolding concept echoes Comenius and can be found in current programs that stress readiness as a factor of learning (Morrison, 1984).

d. Pestalozzi. Greatly affected by Rousseau's naturalism but also affected by his experiences, Pestalozzi concluded that one cannot rely solely on the child's initiative and expect that learning will occur. A child cannot be expected to learn basic skills by himself. Instead, he should first be provided with the proper sensory experiences

for his natural potential to be developed. Therefore, teachers should plan activities aimed at the integration of home life. Here a balance is struck between child-directed and teacher-directed learning, a feature of many present day early childhood programs (Lawton, 1988).

e. Froebel. Born in Germany, he devoted his life to developing a system for the education of young children. He opened his first kindergarten (children's garden) in 1837, and the choice of the name reflected Rousseau's and Pestalozzi's ideas of the child developing in nature's garden. Froebel has become known as "the father of the kindergarten" not simply because he coined the name, but because he devoted his life to both the development of a curriculum and methodology for the young child and a system of training for kindergarten teachers (Morrison, 1984). He viewed the role of education as fostering natural

development rather than attempting to mold the child into something he would not naturally become.

Therefore, Froebel prescribed a permissive education that is based on freedom and self-determination. The educator's role, be it parent or teacher, is to provide activities that would enable the child to learn what he is ready to learn. In this sense, the teacher acts as a designer of experiences, and activities and as a facilitator. Thus, Frobel laid down the foundations for what would be a later concept,the child-centered school. Another of Froebel's important contributions to early education was his belief in the importance of play. Since he viewed the child as a unique, creative, and productive person who learned through playful activity, he laid great emphasis on educational play material (Read et al., 1988).

f. John Dewey. Through his position as professor of Philosophy at the Universities of Chicago and Columbia, his extensive writing, and the educational practices of his many followers,Dewey did more to alter or redirect the course of American education than any other person (Morrison, 1984). He ran a model early childhood educational program, in which his developmental interaction approach emphasized learning through real-life experiences. Dewey's theory of schooling, called progressivism, places emphasis on the child and his interests rather than on subject matter. The curriculum should be built on these interests, and the responsibility of the teacher is to plan for and capitalize on opportunities to weave traditional subject matter around these interests (Dewey, 1938). His model is the precursor of what the open classroom should be.

g. Maria Montessori. If any one person sparked a revival in early childhood education, it was Maria Montessori (Morrison, 1984). She was born in Italy in 1870, and until her death in 1952, she devoted her life to the development of an early childhood educational program, to the running of a day-care center in Rome, and to the establishment of a special school for the retarded. She also developed and employed a variety of educational play equipment. Montessori believed that children pass through a series of sensitive periods when the child is particularly tuned to some aspect of learning. Therefore, learning activities should take account of these sensitive periods. However, she also thought that development and learning should not be left to the whims of a child's free exploration (Montessori, 1979). To promote learning, Montessori developed a prepared environment with especially constructed

learning materials.

Montessori schools flourished in the U.S.A. in the early 1900s but then suffered a decline. The program was criticized as being too academic because of its objectives of teaching children particular concepts and skills; it was the era of Dewey and the belief in child-centered, expressive ideas. However, there has been a strong revival of interest in Montessori programs since the 1960s, and Montessori schools now flourish in many parts of the world. These schools are usually well-staffed, superbly equipped, and expensive (Nixon & Nixon, 1971).

3. Recent Past. About the same time Montessori was working with retarded children in Rome, McMillan and Owen established the first nursery schools in England, schools which aimed to compensate for the

neglect of children in poor homes. McMillan's programs taught self-care, good hygiene, and clothes care, and offered nourishing meals and plenty of exercise. In the U.S.A. at about the same time, Pratt founded one of the first nursery schools. After World War II several nurseries like the Merril Palmer school in Detroit opened. Many colleges began establishing laboratory nursery schools during the 1920s and the 1930s; The nursery school programs continued to increase in the 1970s and into the 1980s, due to the increase in the number of working mothers during this period.

Contemporary influences on early childhood education. The field of early childhood education is constantly changing as a result of social, political, and economic conditions. These areas influence not only how children are taught, but also where and by

whom. In many instances, economic influences determine whether one can afford to teach and provide basic care for children. (Morrison, 1984).

A number of such forces and phenomena influenced the nature of contemporary early childhood programs in the West.

1. The Women's Movement. The traditional concept of the family is changing, in particular with respect to the position of women in today's world. Women are moving towards a more equal status with men. This movement for the equality of women depends in part on relieving women of the constant care for children and on providing help to parents in how to become more effective parents.

2. Working Parents. More and more parents of both sexes are finding that both sponses need to work to make ends meet. In fact the tremendous increase in day care programs in the 1970s and 1980s can be

attributed almost entirely to the extraordinary increase in the number of working mothers during that period (Lawton, 1988). Care for their children was needed, and it has taken the form of enrollment in nursery schools.

3. **Single-parents.** The number of one-parent families is increasing again creating a need for care for the children.

4. **Basic Education Movement.** A strong movement in early childhood education advocates teaching the basics and the skills and concepts associated with learning them. This movement was encouraged by educational results stemming from Sputnik. An emphasis on learning more and learning it faster at all levels, including nursery schools, emerged, resulting in a perceptible and decisive change in the total emphasis on nursery education and creating in parents a sense of urgency and an accompanying tendency to start

schooling at an earlier age (Nixon, et al., 1971).

5. Rising Incomes. Rising incomes generated interest in early childhood education. Many parents with college degrees and middle-level incomes became willing to invest in early education for their young children, especially since recent research (Bloom, 1964; Hunt, 1961) has suggested that the first 5 years of life are crucial for intellectual development.

6. War on Poverty. Aid from the War on Poverty federally supported campaign came in the form of day care centers which were designed primarily to meet the needs of the poor. Overall care was provided, which included food, protection, recreational and enrichment experiences, emotional experiences, supervision, and consultation (Day et al., 1977).

Basic tenets of early childhood education. There are certain assumptions that are common to most early childhood education programs. They embody the principles that will be used as one works with children. Read (1980) has outlined some of the basic assumptions and tenets which underly early childhood programs as:

1. Every child is an individual with his own rate and style of learning and growing, his own unique patterns of approach to situations, and his own innate capacities. We need to accept each child as an individual with his own frame of reference and values, and we need to provide him with experiences adapted to his individual needs and individuality.

2. The child's genetic constitution and the environment together determine the course of his development. The genes determine the limits of development and the environment determines how much of

what is possible will be achieved.

3. Intelligence develops as it is nurtured. Cognitive development depends on adequate and appropriate physical, mental, and social nourishment supplied by the home, the school, and the community. The "critical period" for nurturing intelligence seems to occur early in the life of individuals, and the individual needs a range of suitable experiences and opportunities. Making up for deficiencies may be an important part of any program for many children.

4. All aspects of development --physical, social, emotional, intellectual-- are interrelated.The child develops as a whole, with each area influencing and being influenced by what takes place in other areas.

5. Growth means change taking place, not only in a child's height and weight but also in his capacities and characteristics. The educator's role is to

influence growth changes in positive, healthy directions, both physically and psychologically.

6. Growth takes place in orderly sequences or stages, with each successive stage depending on the outcome of previous stages. Rates of growth differ for individual children, but the sequence of stages is uniform.

7. Play is an important avenue for learning and for enjoyment. Children learn through active experience in play, using all their senses to do things to and with materials and to represent concepts in play.

8. Attitudes and feelings are important in learning and in healthy personality growth. The attitude of the child toward himself, the way he feels about himself, is an important factor in his learning and in his mental health. A positive self-concept or self-image enables the child to use his capacities

well.

9. Behavior is motivated by extrinsic and intrinsic factors. Extrinsic forms of motivation consist of giving attention, approval, or reward for a specific behavior. Intrinsic motivation comes from inside the child, arising out of his curiosity, his past experiences, and his drive towards competence.

10. Understanding, responsible guidance is necessary if the child is to develop his potential. Parents are the child's most important teachers. Teachers need to work with parents, and they have the responsibility to interpret programs to parents and understand their expectations.

11. The development of a young child suffers if there are deficiencies in nutrition and health care and in the richness and variety of appropriate firsthand experiences.

12. A healthy environment is the right of every

child and the first responsibility of the community and the nation. A healthy environment provides adequate health care, food and shelter, and community services including schools and family support services.

Goals and objectives of early childhood education. Goals and objectives here refer to the ends or purposes towards which the early childhood education programs are directed. Goals are usually general descriptions of philosophy, ideals, and long-term purposes of a program, while objectives are more precise, short-term behavioral outcomes.

All the early childhood programs have as their general goal fostering the development or learning of the child (Day et al., 1977) and meeting his basic needs of safety, good health, and wellbeing, as well as his intellectual, social, and emotional needs

(Lawton, 1988). However, different programs have different goals depending on their own theoretical background and assumptions about learning and development. The particular goals of some early childhood education programs will be outlined below:

1. Froebel's Kindergarten. Based on Froebel's prescription for a permissive education, the kindergarten's role is basically to support the child's development and to help him achieve an understanding of the concepts of the universe (Froebel, 1903). However, the concept of kindergarten has changed drastically since Froebel's time, and the aims of a modern kindergarten are to: (1) teach thinking and problem solving skills; (2) teach basic concepts and skills; (3) provide the opportunity to engage in the creative arts, and physical education; (4) provide the opportunity for free play and self-expression; and (5) provide the opportunity to engage in a variety of

social situations and build self-esteem (Lawton, 1988).

2. Montessori Schools. The general goal of a Montessori school is to support the general development of the child in the sensorimotor, intellectual, language, and moral areas by observing the child to determine his sensitive periods. It is also to provide him with experiences and an environment that can support his development (Montessori, 1970).

3. Nursery Schools. The physiological basis of development and education underlie the original conception of the nursery school as proposed by McMillan. She stressed perceptual-motor development and training of the senses as necessary to early education. Thus, the goal of the nursery school then was to support the physical and mental development of young children and to provide the qualities of the child-rearing environment available in the more

affluent homes. In other words, the goal of the pioneer nurseries was to provide nurturance (Spodek, 1973).

4. Contemporary Models: An analysis of contemporary programs (behaviorist, open education, Piagetian) in early childhood education may suggest that differences among alternative program models might actually be differences in style or degree of emphasis, rather than differences in goals, methods, content or assumptions. Many of these models might best be understood by placing them on a philosophical continuum of the view of man upon which they are based (Spodek, 1973). Therefore, instead of discussing the goals of each model separately, this section will discuss the general goals of preschool education as agreed upon by some current models.

a. Social and Interpersonal Skills. To help children learn how to get along with other

children, with adults, and with teachers.

b. Self-Help Intrapersonal Skills. To teach a child how to take care of his personal needs: dressing, eating, health, and grooming skills.

c. Self-Image Skills. To help a child develop a good self-image and high self-esteem by learning about himself, his family, and his culture, and by developing a sense of self.

d. Academic Skills. To teach the child his own name and address; to teach colors, sizes, shapes, positions, numbers, and developing prewriting skills.

e. Thinking Skills. To teach the skills essential to the construction of schemas in a Piagetian sense, such as classification, seriation, numeration, and knowledge of space and time concepts.

f. Learning Readiness Skills. Essential for children's initial success in school: following directions, learning to work by oneself, listening to

the teacher, developing an attention span, and controlling impulses.

g. Language Skills. Related to oral language use such as to increase vocabulary, etc.

h. Nutrition Skills. To teach about foods and about the role good nutrition plays.

i. Developing Independence. To foster independence and a positive attitude towards learning and coming to school.

j. The Whole Child. To provide activities and experiences that promote growth and development in the physical, social, and cognitive areas, recognizing the child as a whole person. Good programs try to balance activities while addressing these areas.

Controversial issues in early childhood education. The importance of early childhood care and education has been a source of controversy for years.

With the growth in the number of day care facilities and the shift in their role from the merely custodial to the custodial and educational, 2 important issues about the value of day care have increasingly been raised.

The first issue has to do with the effect on the child of his leaving home for the first time to attend a day care facility. Some specialists believe that participation in an early childhood program away from home can be psychologically, socially, and emotionally damaging to the child, i.e. that early separation from parents is harmful to the child (Bowlby, 1969; Ainsworth, 1973). These psychologists believe that attachment to parents at home is crucial to normal development, whereas others (Lamb, 1978) believe that young children can benefit from separation if the care is of good quality.

The second issue has to do with the contribution

day care might make to the child's intellectual development. In this respect, some specialists believe that direct, formal instruction can be harmful to the average child, although it can be beneficial for disadvantaged children (White, 1985., Tizard and Hughes, 1984). These authors also favor the home as the best place for a young child to grow and develop. Other specialists argue that early structured instruction is important, indeed crucial, if the child is to achieve the fullest potential in intellectual and social development. The main argument in this case is that young children frequently make errors in their self directed learning that persist into later life and are difficult to "unlearn". Carefully sequenced instruction, on the other hand, tends to ensure that important concepts and skills are learned in the preschool years and that they will provide the building blocks for further learning (Etaugh, 1980; Hoffman,

1984; Fowler, 1983).

Present and future trends. In the midst of this multitude of models, practices, and theoretical orientations, one should pause and consider what trends are developing and what concerns one is likely to face in the coming years. A number of trends have emerged in the past few years, and they are expected to dominate the field in the near future.

First, it is expected that the number of children needing daily care outside of their home will continue to increase. The main reasons seem to be demographic factors, availability and cost; employment conditions, particularly for mothers; and attitudes towards children (Hofferth, 1979).

Second, the emergence of the child advocacy movement and the accompanying concern for the rights

of children, a "generalized commitment to children's rights and to improving social provisions for children" (Kahn, Kammerman, & McGowan, 1973 p. 84). At present, the most vital issue on the legislative front is the implementation and maintenance of standards that will help assure that the care provided is nurturing and generative rather than merely custodial (Heindrick, 1980).

Third, there is an increased flexibility and variety in the types of services and instruction offered and in approaches to teacher training.

Fourth, there is increasing recognition of the importance of parenting and increasing concern about effective ways to link home and school more closely and to educate parents (Gordon and Breivogel, 1976). Parent education is taking many new forms, ranging from courses on parenting and family life offered at the high school level to the intensive tutoring of

mothers of infants. Also, the staff of many early childhood programs work hard to provide stimulating, helpful parent meetings intended to broaden the parents' knowledge of child behavior.

Fifth, there is a concensus on the need for better research. Many fields need to be explored;longitudinal studies are in short supply; some important areas like play are ignored. Also a great deal of information is needed about children who are functioning well, and about the circumstances in their lives which have made this possible (Heindrick, 1980).

The central theme of all of these concerns is the child and his welfare. The child's well-being will continue to predominate the field of early childhood education. And, whenever policies are made, models adopted, or compromises suggested, the yardstick of what will be of maximum benefit to the child must be

used. As one makes decisions that affect the child's future, he must never lose sight of the interests of the child.

Early Childhood Education in Lebanon and the Arab World

The Arab World

Introduction. Early childhood education in the Arab World is of recent origin. The growing interest of the Western World in child welfare and the poor conditions in which the majority of Arab children are brought up have pointed to the need for a clearly defined governmental policy on early childhood education. One or 2 pan-Arab organizations were established to study the Arab child and the conditions under which he lives and to come up with recommendations for improving his lot. The most notable of these organizations is ALECSO (Arab League Organization for Education, Culture, and Science), based in Tunisia, and the Kuwait Organization for the

Advancement of Arab childhood, based in Kuwait. Most of the studies on early childhood education referred to in this chapter were conducted by or under the auspieces of one of these 2 organizations.

Rising Interest in Early Childhood Education. In recent years, interest in early childhood education has risen sharply in the Arab World (Ibrahim, 1988). Several factors have contributed to this rise. First, over a fifth (23 percent) of the Arab population is between 0 and 6 years of age (ALECSO, 1983); more specifically, one tenth of the Arab population is between 3 and 6 years of age (Arab League - United Nations, 1988), and many of them live under unsatisfactory conditions. Second, the traditional Arab family has undergone a dramatic change in recent years, especially with more Arab women going out to work or completing their education. Third, the prevailing inefficiency of the elementary school

system and the subsequent need for constant contact with Western culture and with recent research on child development have highlighted the importance of the first few years of life for later development. This rising interest has led to an extensive study of the preschool child and early childhood education in the Arab World. Some of the findings will be outlined in the next few pages.

Status of Preschoolers in the Arab World. There are 30 million Arab Children between the ages of 0 and 4, most of whom live under deprived conditions:

1. **Low income.** A large percentage (67 percent) of the population live under difficult economic conditions (World Bank, 1980).

2. **Illitracy.** There is a high illiteracy rate especially among women, the major caretakers of the child who are in charge of its upbringing. This

rate could exceed 50 percent to reach 80 percent in some countries (World Bank, 1980).

3. Insufficient Health and Nutritional care. This condition is evidenced by the high infant death rate reaching 135/1000 (World Bank, 1979).

4. Large Families and a High Birth Rate. The Arab countries enjoy a 45 percent birth rate, and large families of 5 to 7 members per family on the average are predominant (United Nations, 1980). These figures minimize the chances of adequate care for the child and make it difficult for the parents to meet their children's basic needs.

5. Non-Stimulating Educational Environment. The low rate of publishing (books and magazines), the presence of few libraries, and the inadequacy of children's programs on radio and TV testify to this condition (UN, 1980).

Status of Early Childhood Education in the Arab World.

1. Nursery Schools. These schools are available in only 6 countries, and in small numbers (ALECSO, 1983). They are government supervised but privately run and are mostly in the cities. Helper/student ratio is low (10-11 children/helper) compared to the western rate of 8 children/helper. The helper's preparation training consists of a secondary education with little if any special training.

2. Kindergartens. On the average, there are 180 kindergartens in each Arab country, but they cater to only a small percentage of the preschool population. Only 3 to 5 percent of 3 to 6-year-old Arab preschoolers attend kindergartens (ALECSO, 1983). Arab Kindergatens are either publicly or privately run. On the average, every teacher is responsible for 27 students, and the number may go up to 42 in some countries. Kindergarten teachers are usually holders

of secondary education degrees, and they do not undergo any special training or preparation except in 4 countries. The general goal of the Arab kindergarten is to develop the child's senses, potentialities, and basic skills, as well as to prepare him for elementary school.

Based on the above mentioned information, it is clear that Arab preschool children, constituting over 20 percent of Arab society, are living under unfavorable economic, social, and educational conditions. These conditions dominate the home, the school, and the community of the Arab child and pose an obstacle to his development and welfare.

Lebanon

Introduction. In Lebanon, as in other countries, a new degree of interest in the growth and development of children can be discerned. The growing national

interest in the well-being of children and families can be explained by the Arab emphasis on the continuing availability of competent human resources necessary for the future development of a country. This rising interest has led to several studies on the status of children, in particular preschoolers, in Lebanon (Abu Nasr, 1980; Maa'luf, 1983; Helou, 1984; Kuwait Fund, 1986), with the aim of identifying childhood needs and thus increasing understanding and guiding planners and policy makers. Many needs and many shortcomings in the Lebanese educational system were identified.

The eruption of the civil war in 1975 aggravated the already existing problems; new problems have emerged as a result of the destruction of resources and the annihilation of the infrastructure in some urban and rural areas. Drastic changes in the standards of living have occurred affecting a sizeable

segment of the Lebanese population. Families are faced with acute problems of housing, employment, food, schooling for children, health care, and security (Abu Nasr, 1980).

Over the last 15 years, the children of Lebanon have been exposed to an unusual amount of violence, terrorism, combat, and insecurity. They have lived in the middle of an extremely demanding psychological environment; at the same time, the development of educational, social, and welfare services to deal with the problems has been eroded by more than a decade of armed conflict.(Kuwait Society For the Advancement of Arab Children, Arab Gulf Programme For United Nations Development Organizations, and American University of Beirut, 1986). The war has resulted in widespread reductions in the range and quality of services offered to children in Lebanon. In this situation, what is the status of preschoolers and

preschool education in Lebanon ? From the limited literature on the topic, the next few pages will try to give a brief description of these 2 fields.

Status of Preschoolers in Lebanon. Lebanon is a young country with 45 percent of its population below 15 years of age and 18 percent between 0 and 4 years of age. Before the war of 1975, many of the unfavorable environmental conditions under which the Arab child is raised also prevailed in Lebanon, although to a lesser extent. After the war, however, the situation became worse.

1. Low Income. National income figures for Lebanon are not available for recent years due to the war situation; few if any reliable studies exist on the per capita income in Lebanon since the mid seventies. Earlier,though, Lebanese families enjoyed a higher standard of living than other Arab countries.

The war has caused substantial loss of income

2. Illiteracy. Lebanon's illitracy rate in 1980 was 32 percent substantially lower than the average for other Arab countries, at 50 percent, (ALECSO, 1983). Recent figures have not been published, but the war situation has adversely affected the school system, especially the public school sector, and the illiteracy rate might have gone up.

3. Health, Nutritional Care and Family Size. Here too Lebanon's pre-war figures were better than those for the Arab world as a whole. The infant death rate was 59/1000, significantly lower than the Arab average of 135/1000; The birth rate in 1978 was 33 percent which is the lowest among Arab countries. No figures have been published recently but there is no doubt that the war has adversely affected health conditions in Lebanon (Kuwait Society et al. , 1986)

Status of Preschools in Lebanon

1. Historical Perspective. With the arrival of foreign missionaries in Lebanon around the midnineteenth century, Lebanon started its educational renaissance. This movement did not extend to the preschool system until the 1940s, and even then it was limited to a few schools and to special social milieus. Four to five-year-old children were admitted to these preschools and taught reading, writing, arithmetic and the Bible. In the early fifties, interest grew in the field of preschool education, and the following 20 years witnessed both quantitative and qualitative changes. In 1964, only 13.9 percent of preschool aged children attended schools; The figure went up to 16.6 percent in 1982. The average for Arab children is only 5 percent.The greatest increase was in the number of 4 to 5 year olds who attended

preschools. In 1964, only 14.4 percent of 4 to 5-year-olds attended, while in 1980 75 percent went to school (Maaluf, 1983). This figure applies to Beirut; the average is 60 percent for those 4 to 5-year-olds who live in the suburbs (Abu Nasr, 1980).

Qualitative changes also emerged in the content, methods, and practices of preschool education, obvious in the initiation of new programs, training of nursery staff, and preparation of materials (maaluf, 1983). In the beginning, the development of preschool education was totally restricted to the private sector, and it was not until the seventies that the public sector joined and early childhood education was incorporated as part of the public educational system. Many preschoolers attended publicly run preschools in the seventies, but the number went down in the eighties due to a loss of confidence in the public school system at this level. Now only 17 percent of

preschoolers attend publicly run kindergartens (Maaluf, 1983).

2. Contemporary Status of Preschools. Significant differences exist between private and public preschool educational systems in Lebanon in relation to the number of schools, enrollment age and magnitude, goals and objectives, and adequacy. Although the number of schools that include kindergartens in the public sector (1018) is greater than that in private sector (788), the actual number of preschoolers attending public schools is less (Helou, 1984). Public preschools admit children only at the age of 4 providing 2 years of preschool. Private preschools, which may admit as early as 2, generally admit at age 3, giving children 3 years of preschool. The public pre-school sector was still new when the war errupted, and therefore suffered detrimental effects from the war. The private

preschool system, with its longer experience, was able to withstand the war better. Those preschoolers depending on public schools are thus at a social disadvantage (Abu Nasr, 1980).

With respect to goals and objectives, one has to admit that both the private and public sectors fail in this respect. When asked to identify the goals of preschool education, vague responses and cliches such as the following are given: "realization of self", "full development of the child", and "continuation of family education" (Helou, 1984). In a study conducted on the private sector (Maaluf, 1983), 65 percent of those responsible for preschools identified the educational goal of preparation for elementary school as their main target, while only 15 percent identified physical, mental and emotional development as their target; and 20 percent could not identify any specific target.

3. Survey of Preschools. In order to get a more recent view of preschool practices, particularly preschool screening, a survey was conducted by the writer in the spring of 1988. A sample of private schools representing various educational orientations (French, Anglo-Saxon, and American) and differing socio-economic levels was chosen, and interviews were conducted with pre-school administrators and teachers. The results revealed that there is great pressure on the private sector because of the large numbers applying and that preschool screening is needed for selection. Some form of preschool screening is used by most schools, 83 percent, but without objectivity, adaptation, or standardization. There is a definite need for a culturally adapted objective preschool instrument. Some other significant results of the survey will be discussed in the next section, and a copy of the interview and results are presented in Appendix D.

Other studies also confirmed the need for a screening instrument normed on the Lebanese preschool population in order to diagnose learning problems early (Atiya, 1985; Kuwait Society et al., 1986). Atiya (1985) concludes that 25-30 percent of Lebanese children might need special education, and therefore an early diagnosis is needed. The Kuwait Society study also revealed a group of needs, foremost among which is need for basic health screening (Physical, mental, psychological) for every child.

In conclusion, we can say that the Lebanese preschool child suffers from many of the problems inherent in the Arab World, and in addition has war to cope with. The physical and social environment of the young child in Lebanon has little to offer the child's total development, and therefore he has to rely on his family for his physical and mental development,

a family which is also faced with multitudes of problems. The next few pages present recommendations for dealing with the present situation and suggest a model for future implementation.

A suggested Model For Lebanon

Recommendations. The following recommendations could act as the nucleus for a more comprehensive early childhood education program in Lebanon.

1. There is a great need for more nurseries and kindergartens. Here, the public sector is called upon to play the decisive role. As pointed out earlier, the public sector's contribution to early childhood education so far has been humble and minimal. But, for any future changes to occur, the public sector has to take the initiative and sponsor a comprehensive plan for the overall development of the Lebanese preschool child. Unfortunately, the private sector cannot be

depended on anymore because of its depleted resources, a result of the war. Therefore, the only hope in the forseable future is in the public sector.

The goals of a publicly sponsored early childhood education program should be to compensate for the environmental and educational disadvantages of the Lebanese preschool child by (a) increasing the number of nurseries; (b) lowering the age of admission to 30 months instead of admitting at 4 years; (c) training of personnel responsible for these nurseries; (d) equipping these nurseries with all the needed educational and play material; (e) establishing strict guidelines and rules for running these preschools in order to ensure specific standards; (f) producing or encouraging publications, learning materials, audio-visual material (films, programs) and toys that are based on the needs and culture of the Lebanese preschooler; and finally (g) encouraging and

sponsoring research on child development, the preschool child, and the factors that are related to his cognitive development. A thorough understanding of these factors will help improve the quality of services and programs designed to help in the process of childhood development.

2. Each preschool program should concentrate on the child and his needs, and not on what society expects of him or what a nursery hopes to make of him. The objectives of a nursery should be defined in terms of the needs of children. One should think of the child as an active agent participating in his own development, and not as a passsive receiver of information. What a Lebanese child is being taught does not (or may not) totally agree with his needs and abilities as a Lebanese child. Therefore, the first step is to identify the Lebanese child's needs, abilities, and potentialities. Once these are

determined, then a curriculum can be developed to meet these needs at different age and grade levels. This proposed curriculum should be tried on a sample of preschoolers representing various regions, socio-economic levels, and educational orientations. Based on the results of the experiment, the program could be revised. The final outcome should be within the capacity of all Lebanese preschoolers and would be representative of their needs and abilities.

Definition of needs and abilities. Any future program for the development of early childhood education in Lebanon should start with a clear definition of the needs of the Lebanese child, and with a precise assessment of his abilities. This dissertation hopes to come up with a precise, reliable, and valid instrument assessing a preschooler' s readiness skills. The assessment of his needs should

be the subject of another research as it is very extensive and not feasable in the present circumstances. Thus, the next few pages will outline the most important needs of preschoolers in general and will leave it to future research to identify which among these are applicable to the Lebanese preschooler.

1.**Needs.** The prime target of preschool education should be to meet the needs of the child by providing him with every opportunity for development to his full potential as an individual. The overall and comprehensive development of the child in all areas should be its goal. A child needs to develop socially, emotionally, intellectually, physically, and morally. The preschool should provide the right circumstances for him to develop in each of these areas.

A preschooler has social needs i.e. he needs to develop his personality, to experience, and to establish relations with teachers, peers, parents, etc. He also has physical health needs, i.e. he needs the opportunity to develop his gross and fine motor skills, to learn about good nutrition, and to care for one's own personal needs. A preschooler needs to develop intellectually too, i.e. he needs to discover, to experience initiative, to acquire some academic and thinking skills, and to improve his linguistic abilities. Emotional needs are also of prime importance to the preschooler. He needs to experience independence, to develop a good self-image and confidence, and to learn self-control. Finally, a child also has moral needs. He needs to be brought up as a good citizen with a strong commitment to his country and people and an appreciation of their traditional values and heritage.

The above mentioned needs have been cited as the most important needs of preschoolers. However, different socio-cultural environments have different views of the needs of their children, as was revealed in the comparative study done by Nashif (1985) on the differences between the goals and aims of Kuwaiti and U.K kindergartens. Although development of the social needs was cited as the most important goal of the kindergarten in both the U.K. and Kuwait, there were differences with respect to the importance of the other needs i.e. the intellectual, physical, and moral. Differences could also be assumed for Lebanon. We can safely assume that the Lebanese child needs to develop in all areas, but we cannot identify his most important needs or even rank them in importance until previously suggested research has been done.

2. **Abilities.** The second component of the model, namely the assessment of a preschooler's range of

abilities and comprehension is the subject of this research. The development of a reliable and valid preschool readiness instrument is the target of this research. It is hoped that this instrument will provide an index of a child's readiness for preschool as well as an assessment of his developmental status in the conceptual, physical, and linguistic domains. Not all aspects of a child's development are covered by this instrument. It is the researcher's personal opinion that the abilities covered are the most important readiness skills needed for entering preschool and for future performance in school. The other needs (social-emotional) are also very important, but these should be the target and work of the preschool itself. A full description of the instrument, its purpose, rationale, and abilities covered will be presented in the next chapter.

CHAPTER V

The Lebanese Preschool Readiness Test Specifications

The preschool years represent a well-defined landmark in a young child's development. The literature clearly emphasizes the rapid developments of this period and the critical role the early childhood years play in the prevention of later learning difficulties (Leichtenstein et al.,1986). Early assessment of children's progress in various areas of development will lead to early intervention if needed and to a better understanding of a child's functioning. More specifically, an accurate and rapid assessment of children's readiness for school will enable these children to profit maximally from school. In Lebanon, preschool assessment instruments currently in use tend to be unsatisfactory as they lack standardization,

validation, and cultural adaptation.

Purpose

The basic purpose of this test is to reliably identify children who are ready for school, i.e. to identify those children who have attained pre-requisite skills, knowledge, attitudes, motivations and other appropriate behavioral traits that would enable them to profit maximally from school instruction. At the same time, identification of those children who are not mature enough to begin schooling can lead to interventions that might reduce the risk of future school failure or serious difficulty. The LPRT has been designed to satisfy the need for a single instrument that measures both the general readiness level and children's strengths and weaknesses in abilities important for school performance. It is hoped that these measures of important areas will provide a better understanding of both normal children and those with learning disabilities.

Development of the Test: A Summary

The development of the instrument went through the following stages:

- A review of the literature on preschool screening and assessment was conducted. In addition, the major assessment instruments and the recent trends in the field were surveyed.

- An in-depth analysis of the pre-school child, his abilities and limitations, was conducted with the hope of obtaining a clear and comprehensive picture of the preschooler.

- In addition, Early childhood Education--its goals, scope, and content-- was reviewed in a general context and with special reference to the Lebanese situation. The current status of preschools in Lebanon was determined through a review of the scanty literature on the topic. In addition, a survey and an evaluation of pre-school practices in Lebanon was carried out. Based on

the above and on interviews conducted with a representative sample of preschool teachers and co-ordinators in Lebanon, a clear definition of preschool objectives and a detailed description of the abilities and behaviors that need to be assessed before admission were reached.

- Based on this needs assessment, test specifications were laid down. In accordance with these specifications items were constructed, materials prepared, and instructions for administration and scoring were written.

- The first version of the test made of 130 items was piloted on a sample of 50 Lebanese children of both sexes, aged 2.6 to 5.0. Care was taken to make the sample representative of the applicants to preschools in Beirut. Based on the results of the pilot survey, the test items were analyzed and subsequently revised or discarded. The analysis consisted of the following steps :

1. A logical analysis regarding each item's content and ease of administration was conducted.

2. A reliability analysis which retained items with high item/total correlation, moderate difficulty, and discarded items with low discrimination.

3. An item / age correlation was computed and only items that discriminated between various age levels were retained.

4. Items were also tested for sex bias. A t-test was run between the male and female scores and most of items which discrminated between sexes were either dropped or changed except if these items added to the content validity of the test and/or if they possessed the other qualities of age discrimination and moderate difficulty.

As a result of the above analysis 8 items were discarded while 39 others underwent changes either in their content or in their form of presentation. The

items are the following :

1. The 'giving of address' in Personal Data Scale was dropped because it was too difficult, shwed no significant age differences, and instead showed significant sex differences in favor of females.

2. The puzzles had to be changed, some were difficult and did not show any significant age differences.

3. Mending the broken doll of the 'Identifying Body Parts Scale' had to be dropped because it was easy and with very low item / total correlation and negative age discrimination.

4. The brown and purple colour items in the 'Colours Subscale' were dropped being too difficult and not showing any significant age differences.

5. Balancing for 10 seconds, throwing bean bag, drawing a man, and a 3-digit numeric memory were dropped because of their difficulty, low item / total correlation, and lack of significant age differences. In

addition, the draw-a-man showed significant sex differences.

6. Card 1 in 'Pictorial Memory', some of the colour cards (e.g. orange), and shapes (e.g. rectangle) had to be redone to make them clearer.

7. Jumping items carried a significant sex difference but were kept due to their significant age and item / total correlation as well as their importance. A note was mode however of the sex difference.

8. The 28 verbal items constituted a problem as most were too easy, showing no significant age differences and with low item / total correlation (especially the Identifying Objects by Naming items). Most of the items were changed and replaced by words from a list prepared by Beirut University College, representative of speech of 2-5 year old preschoolers. This was part of a study which noted, observed, and studied children's speech over a 10-year period, and

listed their most common words.

The final version of the test consisted of 122 items (Appendix A) divided into 4 scales, which in turn are distributed among 15 subscales.

Description of the Test

The instrument has been designed to be appropriate for children from 2.5 to 5.0. The content of the tasks was designed to be suitable for both sexes. The materials and questions are "gamelike" and nonthreatening. A wide range of behaviors is sampled, and the child proceeds easily through a number of enjoyable activities. The extensive review of preschool assessment conducted helped identify the types of behaviors most highly related to successful school performance, a multi-dimensional array that includes language, memory, and motoric and conceptual processing tasks. Within these behavioral areas, tasks were selected on the basis of teacher input to reflect school behaviors which could be expected from

children in a regular preschool. A collection of behaviors were assembled and plotted by age range. The following criteria were used: (a) the behavior could be demonstrated, observed, and scored in a short span of time, (b) the behavior appeared to be developmental, and (c) it could be elicted in manner appealing to the child. The tasks were divided into four main subscales: Cognitive, Motor, Language, and Memory.

Description of the Scales

The four scales assess a child's abilities in a variety of crucial areas:

1. **Cognitive.** The scale consists of "gamelike" tasks which assess the child's reasoning and general mental abilities through the demonstration of such skills as logical classifications, sorting, matching, identifying similarities and positioning, and naming colours. Verbal ability is involved only to the extent that the child has to comprehend the examiner's spoken

instructions.

Test	Description
(4) Shapes	Child distinguishies between circles, squares and triangles
(5) Colors	Child sorts by color and names colors
(6) Concepts	Child shows understanding of concepts of size, length, weight ,and speed.
(7) Positioning	Child responds to commands of positioning : involving prepositions in, on, under, infront of, behind, etc.

2. Motor. This scale provides a measure of the degree of control a child has over large musclecoordination and over the finer manipulatory skills of hands and fingers. The child demonstrates skills such

as imitation, visual organization in a variety of spatial and visual-perceptual tasks, gross motor functioning, and control over fine muscles. The latter are very much related to the child's ability to embark on reading and writing skills.

Test	Description
(2) Object Manipulation	Child copies structures of block building built by the examiner
(8) Leg Co-ordination	Child performs motor tasks which involve the lower extremities, such as walking backwards, standing on one foot, hopping, climbing stairs, etc.
(a) Hand-Eye Co-ord.	Child bounces a ball, catches a bean bag, copies simple movements, cuts with scissors

and imitates paper folding

3. Language. Athough it is difficult to get a pure measure of language and to separate it from cognitive ability, tests constituting this scale assess the child's receptive language (i.e. ability to decode and comprehend verbal messages, to identify objects, and to follow instructions) as well as his productive language (i.e. ability to formulate and express thoughts and to define words). Verbal ability has proved to be an excellent predictor of school achievement, and therefore the assessment of language and its use is of major importance in early education. Such assessment might identify children who could be at risk in terms of learning how to read or write and in understanding classroom rules and procedures when communicated linguistically.

Test	Description
(1) Personal Data	Child gives name, age, sex,

	and address
(3) Body Parts	Child points to various body parts
(10) Identifying objects	Child demonstrates understanding of spoken language by pointing to objects and naming all pictures on cards
(12) Comprehension	Child demonstrates understanding of concepts and fluency in interpreting them
(13) Verbal Fluency	Child demonstrates ability to classify and think categorically

4. Memory. This scale measures three aspects of the recall and immediate memory, namely: (a) Numeric Memory (b) Verbal Memory, (c) Pictorial Memory, which presents auditory and visual stimuli simultaneously. Verbal and

Numeric Memory tasks , on the other hand, provide auditory stimulation only. The assessment of memory in two modalities, requiring both verbal and nonverbal responses and using a variety of stimuli (pictures, words and numbers) provides extensive evaluation of the child on this important ability.

Test	Description
(11) Pictorial Memory	Child recalls names of objects pictured on cards
(14) Verbal Memory	Child repeats word series and sentences
(15) Numeric Memory	Child repeats series of digits in order presented by examiner

Item Characteristics.

Items that ensured the overall coverage of target content areas were developed. In addition, the items selected had to satisfy the following criteria:

- Brevity. Testing time should range from 15 to 20

minutes. The young age of the examinees (2.6 - 5.0 yrs.), and the number of children to be examined necessitates the short testing time.

- **Simplicity and Reproducibility.** Items are simple to perform and interpret, easily repeatable and subject to minimum inter-observer and intra-observer variation.

- **Interest and Convenience.** The design of the test material reflects an awareness of the interests and abilities of preschool children, should be of practical convenience, and within the capabilities of teacher examiners. In addition, test equipment is light, compact, and attractive to children.

- **Difficulty.** Items selected are passed by a high proportion of the target population, i.e. the items are relatively easy. The test was designed to discriminate at the low end of the continuum, i.e. to distinguish between children functioning below age expectations and thus not ready to join school and those functioning within normal

expectations.

Standardization

The standardization of the LPRT was done by the principal investigator and by a trained examiner. The standardization sample upon which test norms are based is representative of the population for which the test is devised, and it was stratified on several major variables (sex, age, and socio-economic level). The major goal of this stratified sampling was to produce norms that would be representative of the Lebanese population of children aged 2.5 through 5.0 and found in the Greater Beirut area. Five age groups were defined 2.5, 3, 3.5, 4 and 4.5. The groups were spaced at half-year intervals because of the rapid development of mental growth that occurs at these young ages. During standardization, children were tested in day-care centers, nurseries, and elementary schools, as well as in physicians' offices. A total of 250 children were tested, distributed equally

among the 5 age groups.

Scoring

Means and standard deviations for every scale and subscale were computed for the total population, for every age and socio-economic level, and by sex.

Reliability and Validity.

The internal consistency of the scale for the whole population and for every age group was computed. With respect to validity evidence, the instrument already has content validation as the items were developed and based on the domain of skills, abilities, or behaviors the instrument purports to measure. These abilities were in turn empirically determined through (1) interviews with teachers to determine what is required of kindergarten entrants, and (2) an extensive review of preschool assessment literature. With respect to the instrument's criterion predictive validation, ratings of the LPRT were compared with scores on the DIAL-R and on end-of-year

teacher reports.

General Testing Considerations

Establishing rapport with the young child. The testing must be done in a warm and friendly atmosphere. The examiner has to establish rapport which will keep the child interested in what he is doing and encourage him to make his maximal effort. The examiner should be reasonably satisfied that the child feels neither anxious nor threatened and that he is at ease in his surroundings. Before starting the test, it is effective to tell the child that the examiner wishes to play some games with him. When brought into the room, the child should sit comfortably before a table suitable for his height and on a chair which will enable him to move about freely and to handle test materials easily. The materials should be conveniently arranged so that the examiner can present them without delay, but they are not to be shown or exposed to the child before they are used. The child

can be permitted to move about the room and get acquainted with the examiner and the materials. If he wants to hold on to test materials, then some coaxing should achieve his co-operation.

Test sequence. The tests should be administered in the order given and in their entirety unless the child's responsiveness necessitates a change in sequence. For example, if a child has some special difficulty with or manifests resistance to a particular test, the examiner is free to change the prescribed order. In establishing the order, the foremost consideration was to provide a variety of activities and thus maintain motivation. The first few tests (e.g. Block Building, Puzzle Solving) have been found to be good icebreakers with shy children since they require no verbalizing by the child. The Motor Scale is grouped together near the middle of the battery to provide a natural built-in intermission that is needed, especially by younger children.

To minimize the effects of the cultural environment and to promote nonbiased assessment, oral instructions are kept to a minimum, and examiners usually demonstrate what is expected from children. Depending on the child's fluency, either Arabic, English, and/or French are used to give instructions and to converse with the child. Sometimes only Arabic was needed; at other times a combination of English/Arabic or French/Arabic was used.

Testing time. The estimated time of testing is about 20-25 minutes.

Materials. All materials used in testing are provided in the test kit. In addition, the following items should be supplied.: a stop watch, sheets of paper and a standard set of stairs. A complete list is given in **Appendix C.**

CHAPTER VI

Standardization of the Test

This chapter describes the standardization of the LPRT and the standardization sample used, and reports the means and standard deviations for the population as a whole and for every age group.

The Standardization Sample

Obtaining a sample that is adequately representative of the population is a central problem in test standardization. In sampling, there are two important variables: size and representativeness. The sample must be sufficiently large to reduce the standard errors of the normative data to negligible proportions and it must accurately reflect the target population at which the test is aimed (Kline, 1986). With respect to its standardization, the LPRT was normed on a sample of 250 children aged between 2.5 and 5.0 years and residing in Beirut. The sample was

stratified on the basis of sex, age, and socio-economic level. It consisted of nearly an equal number of males and females (128 vs. 120, Table 1) divided equally into five age groups which ranged by half-years from 2.5 to 5.

Table 1 :

Breakdown of Sample With Respect to Sex

	N	Percent	Cumulative %
Male	128	51.6	51.6
Female	120	48.4	100.0
Total	248	100.0	

Since reliable and official population census data was unavailable and since norms were developed separately for each age group, it was not possible to test whether the number of cases in any one age group relative to the total sample to be in the same proportion as the number of all Lebanese children of that age group relative to the total Lebanese child population of 2.5 to 5.0. The breakdown of the normative sample with respectto age is shown in Table 2. Each age

groupconsisted of approximately 50 children.

Table 2 :

Breakdown of Sample With Respect to Age.

	N	Percent	Cumulative %
Age I (30-35.5 mos.)	47	19.0	19.0
Age II (36-41.5 mos.)	46	18.5	37.5
Age III (42-47.5 mos.)	53	21.3	58.8
Age IV (48-53.5 mos.)	51	20.6	79.4
Age V (54-59.5 mos.)	51	20.6	100.0
Total	248	100.0	

The 250 subjects came from 9 institutions (preschools, nurseries, and day-care centers), applicants to these institutions, and onepediatric clinic. The institutions were representative of the preschool population in Beirut; they were large institutions which covered a wide sector of the population and its various socio-economic levels. In addition, they reflected prevailing educational orientations (Anglo-saxon,

French). Inthe absence of a criterion that is indicative of socio-economic level in Lebanon, annual school fees were taken as an index of social background. The institutions chosen represented three socio-economic levels (SEL): High, middle, and low. The breakdown of the institutions to the SEL is presented in Table 3

Table 3 :

Breakdown of Institutions Among Three SEL Levels

	Inst.	N	Percent	Cumulative %
SEL I[a]	3	81	32.65	32.65
SEL II[b]	2	86	34.70	67.35
SEL III[c]	4	81	32.65	100.00
Total	9	248	100.00	

[a] : School fees of more than L.L.200,000/year

[b] : School fees between L.L.75,000 and L.L.200.000/year

[c] : School fees of less than L.L.75,000/year

Within every institution and every grade (nursery, KGI), students were randomly selected to avoid any sampling bias. The breakdown of the

standardization sample with respect to age, sex, and SEL is presented in Table 4.

Table 4 :

Breakdown of Sample With Respect to SEL, Sex,& Age

High SEL	Male	Female	Total
Age Group			
I (30-35.5 mos.)	8	8	16
II (36-41.5 mos.)	12	5	17
III(42-47.5 mos.)	8	7	15
IV (48-53.5 mos.)	9	8	17
V (54-59.5 mos.)	8	8	16
	45	36	81
Middle SEL	Male	Female	Total
Age Group			
I (30-35.5 mos.)	6	9	15
II (36-41.5 mos.)	4	9	13
III(42-47.5 mos.)	11	11	22
IV (48-53.5 mos.)	8	9	17
V (54-59.5 mos.)	10	9	19
	39	47	86
Low SEL	Male	Female	Total
Age Group			
I (30-35.5 mos.)	10	6	16
II (36-41.5 mos.)	9	7	16
III(42-47.5 mos.)	8	8	16
IV (48-53.5 mos.)	11	6	17
V (54-59.5 mos.)	6	10	16
	44	37	81
Total	128	120	248

Standardization Data

Tabulated data for all subjects are reported in **Appendix E.** For each subject in the standardization sample, five sums of scores were obtained: for the three Motor tests (M), the five Concept tests (C), the five Language tests (L), the three Memory tests (Me), and the total of these 15 tests (R). Raw means and standard deviations were computed for the whole test and for the various subtests. Table 5 reports the raw means and standard deviations for the whole population (N=248), while Table 6 reports them for every sex group (males, females) and Table 7 presents data by age group (1 - 5). Figures 1 - 5 report the information graphically. Figure 1, for example, presents the means of the Motor scale and its three subtests (object manipulation, leg coordination, and hand-eye co-ordination) by age, while Figure 2 presents the means of the Concept scale and its four subtests, etc. The means and standard deviations by socio-economic group are reported in Table 8.

Table 5 :

Means & Standard Deviations for Entire Population
(N = 248)

Scale	Mean	Std Dev
Personal Data	2.18	.66
Object Manipulation	8.50	2.88
Block Building	6.43	1.17
Puzzles	2.08	2.30
Body Parts	10.69	.97
Shapes	19.35	6.92
Colours	14.31	5.78
Identifying Concepts	2.78	1.10
Positioning	3.77	.99
Leg Co-ordination	16.26	6.35
Walking	9.16	2.99
Jump. Skip	3.57	2.36
Balancing	3.51	1.82
Eye Hand Co-ord.	7.01	2.96
Ball Thraw	1.49	1.22
Draw	2.90	1.28
Cut & Fold	2.62	1.29
Ident. Objects	22.54	4.36
I.O. By Name	10.52	4.47
I.O. By Naming	6.44	1.34
I.O. By Use	5.96	1.70
Pictorial Memory	2.13	.95
Comprehension	8.17	3.41
Verbal Fluency	7.88	4.42
Verbal Memory	13.41	5.87
Numeric Memory	1.37	.76
Readiness	140.35	33.29
Memory	16.90	6.70
Concepts	40.21	10.70
Motor	31.77	10.87
Language	51.46	10.78

Table 6 : Means & Standard Deviations By Sex

	Male (N = 128)		Female (N = 120)	
Scale	Mean	Std Dev	Mean	Std Dev
Personal Data	2.10	.69	2.26	.63
Object Manipulation	8.41	2.98	8.60	2.78
Block Building	6.34	1.32	6.52	.99
Puzzles	2.09	2.27	2.08	2.34
Body Parts	10.70	.79	10.68	1.13
Shapes	19.19	6.81	19.52	7.06
Colours	14.14	5.95	14.49	5.61
Identifying Concepts	2.74	1.14	2.82	1.05
Positioning	3.73	1.05	3.83	.93
Leg Co-ordination	15.89	6.02	16.65	6.69
Walking	9.00	2.93	9.32	3.07
Jump. Skip	3.42	2.31	3.72	2.42
Balancing	3.42	1.77	3.60	1.88
Eye Hand Co-ord.	6.80	3.21	7.24	2.66
Ball Thraw	1.59	1.27	1.38	1.17
Draw	2.72	1.37	3.09	1.14
Cut & Fold	2.49	1.43	2.77	1.13
Ident. Objects	22.27	4.71	22.84	3.96
I.O. By Name	10.79	5.87	10.23	2.12
I.O. By Naming	6.36	1.55	6.52	1.06
I.O. By Use	5.88	1.69	6.05	1.70
Pictorial Memory	2.11	.96	2.14	.96
Comprehension	8.03	3.44	8.32	3.38
Verbal Fluency	7.63	4.38	8.15	4.47
Verbal Memory	12.85	5.93	14.00	5.78
Numeric Memory	1.32	.76	1.42	.75
Memory	16.28	6.83	17.56	6.52
Concepts	39.80	10.38	40.66	11.06
Motor	31.10	10.88	32.49	10.85
Language	50.73	11.03	52.25	10.48
Readiness	137.91	33.16	142.96	33.37

: 6 (a) :

Means & standard Deviations of Sums of

Memory, Concepts, Motor, Language, and Total Readiness score

By Sex

	Male		Female	
	(N = 120)		(N = 120)	
ıle	Mean	Std Dev	Mean	Std Dev
ıory	16.28	6.83	17.56	6.52
ıcepts	39.80	10.38	40.66	11.06
.or	31.10	10.88	32.49	10.85
ıguage	50.73	11.03	52.25	10.48
.al Readiness	137.91	33.16	142.96	33.37

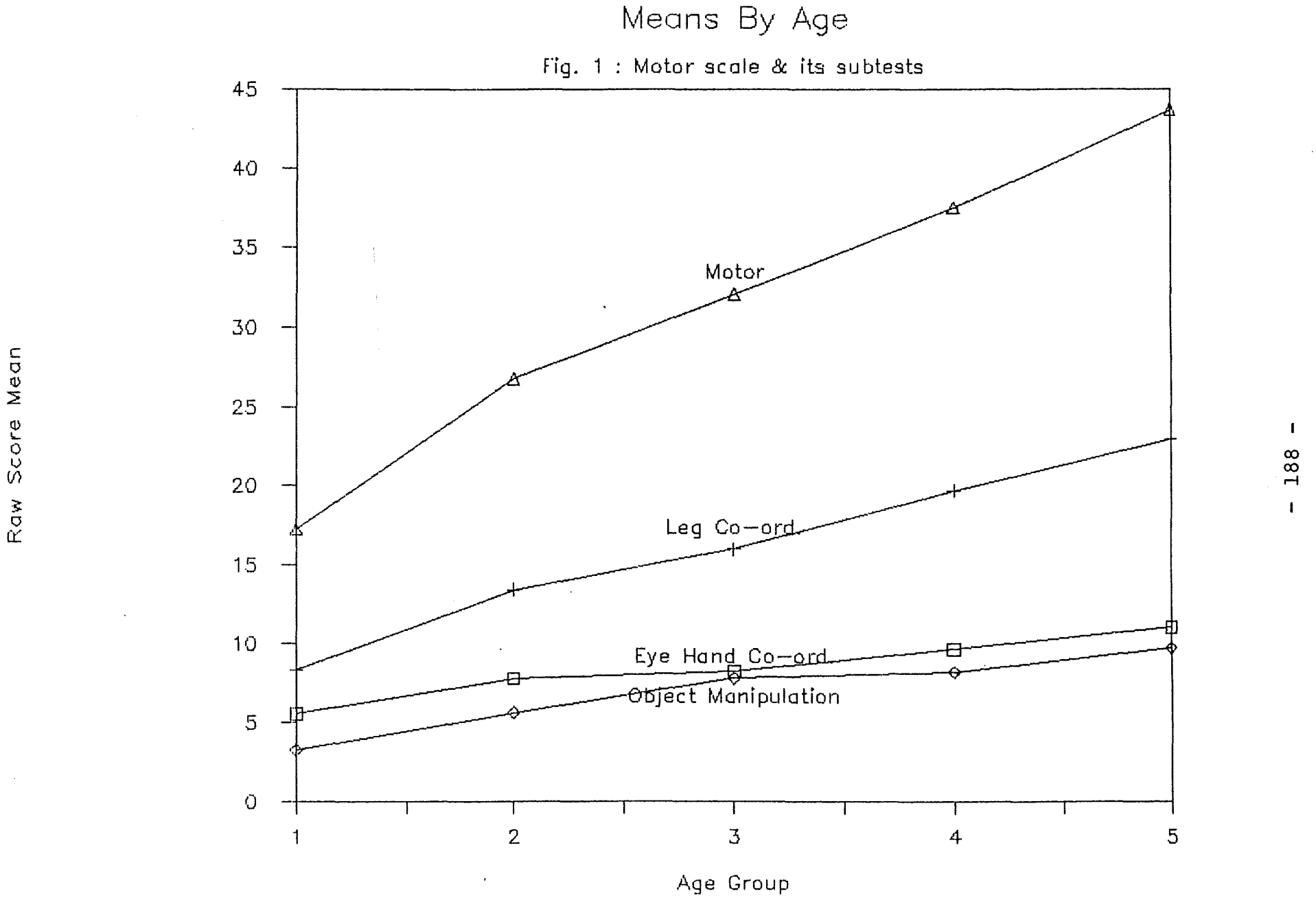
able 7 Means & Standard Deviations By Age

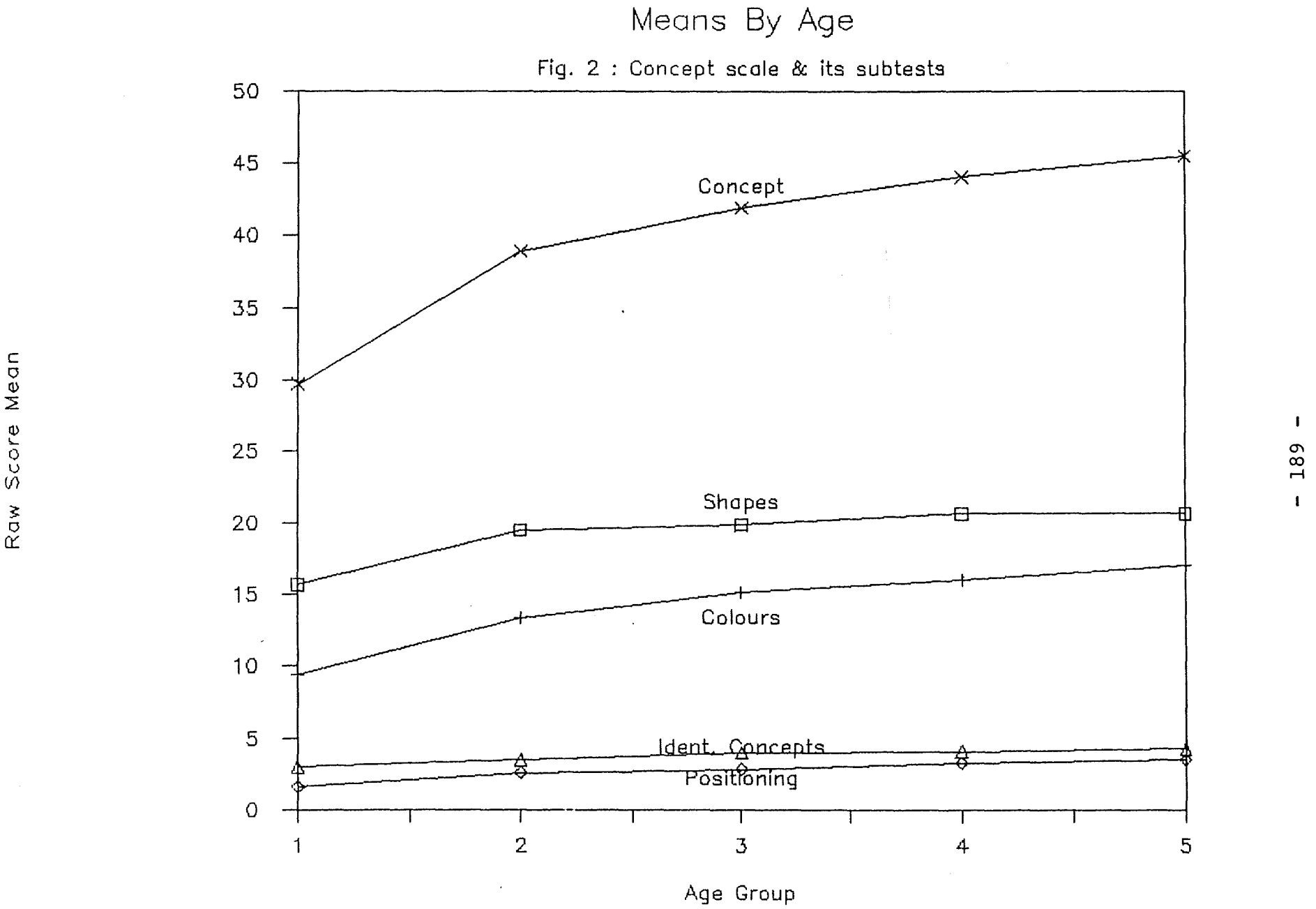
cale	Age 1 (N=47) $\bar{X}$	SD	2 (N=46) $\bar{X}$	SD	3 (N=53) $\bar{X}$	SD	4 (N=51) $\bar{X}$	SD	5 (N=51) $\bar{X}$	SD
ersonal Data	1.72	0.71	1.07	0.71	2.40	0.60	2.31	0.58	2.33	0.48
bject Manipul.	5.57	2.10	7.76	2.00	8.23	2.16	9.63	2.73	11.04	2.13
Block Building	5.21	1.69	6.35	1.14	6.77	0.72	6.84	0.54	6.84	0.50
Puzzles	0.36	0.90	1.43	1.50	1.45	1.93	2.78	2.53	4.20	2.11
ody Parts	10.09	1.87	10.65	0.64	10.81	0.48	10.96	0.20	10.86	0.53
hapes	15.68	7.03	19.52	6.64	19.92	6.31	20.67	5.11	20.67	8.20
olours	9.43	7.13	13.39	5.33	15.17	4.99	16.02	4.79	17.04	3.07
dent. Concepts	1.62	0.87	2.59	1.13	2.83	0.94	3.27	0.80	3.47	0.70
ositioning	3.00	0.88	3.46	0.98	3.96	0.90	4.08	0.96	4.27	0.70
eg Co-ord.	8.36	2.97	13.39	3.86	16.02	3.98	19.71	4.40	22.92	4.25
Walking	5.45	1.83	8.28	2.07	9.02	2.30	10.75	1.96	11.92	1.99
Jump. Skip	1.34	1.11	2.39	1.51	3.45	1.67	4.41	2.16	5.96	2.08
Balancing	1.55	1.10	2.72	1.53	3.42	1.46	4.55	1.33	5.08	1.20
ye Hand Co-ord.	3.28	2.03	5.63	2.20	7.81	2.09	8.18	1.90	9.71	1.63
Ball Thraw	0.70	0.91	1.11	1.04	1.70	1.15	1.45	1.10	2.37	1.23
Draw	1.38	1.26	2.41	1.22	3.23	0.82	3.47	0.83	3.82	0.39
Cut & Fold	1.19	0.92	2.11	1.06	2.89	1.10	3.25	1.06	3.51	0.81
dent. Objects	19.34	4.96	20.76	4.78	22.58	3.03	24.39	2.53	25.22	3.41
I.O. By Name	8.83	2.56	10.85	9.45	10.11	1.63	11.18	1.09	11.53	1.98
I.O. By Naming	5.96	1.41	5.98	1.71	6.32	1.34	6.76	0.84	7.10	0.90
I.O. By Use	4.72	1.94	5.52	1.71	6.06	1.26	6.37	1.46	7.00	1.20
ictorial Memory	2.04	0.88	2.11	0.85	1.85	1.05	2.12	0.95	2.51	0.92
omprehension	5.02	3.64	7.89	3.09	8.08	2.97	9.51	2.83	10.10	2.09
erbal Fluency	4.28	3.44	6.11	3.16	7.23	3.30	9.47	3.67	11.90	4.16
erbal Memory	7.51	4.92	11.11	5.29	13.51	5.22	16.31	4.07	17.90	3.35
umeric Memory	0.70	0.75	1.15	0.73	1.45	0.72	1.65	0.59	1.80	0.45
emory	10.26	5.67	14.37	5.87	16.81	5.95	20.08	4.86	22.22	3.76
oncepts	29.72	10.96	38.96	9.39	41.89	8.90	44.04	7.02	45.45	9.65
otor	17.21	4.62	26.78	6.58	32.06	6.19	37.51	6.97	43.67	6.05
anguage	40.45	10.69	47.48	9.21	51.09	7.18	56.65	6.82	60.41	7.36
eadiness	97.64	23.70	127.62	23.9	141.81	20.0	158.31	19.2	171.82	21.5

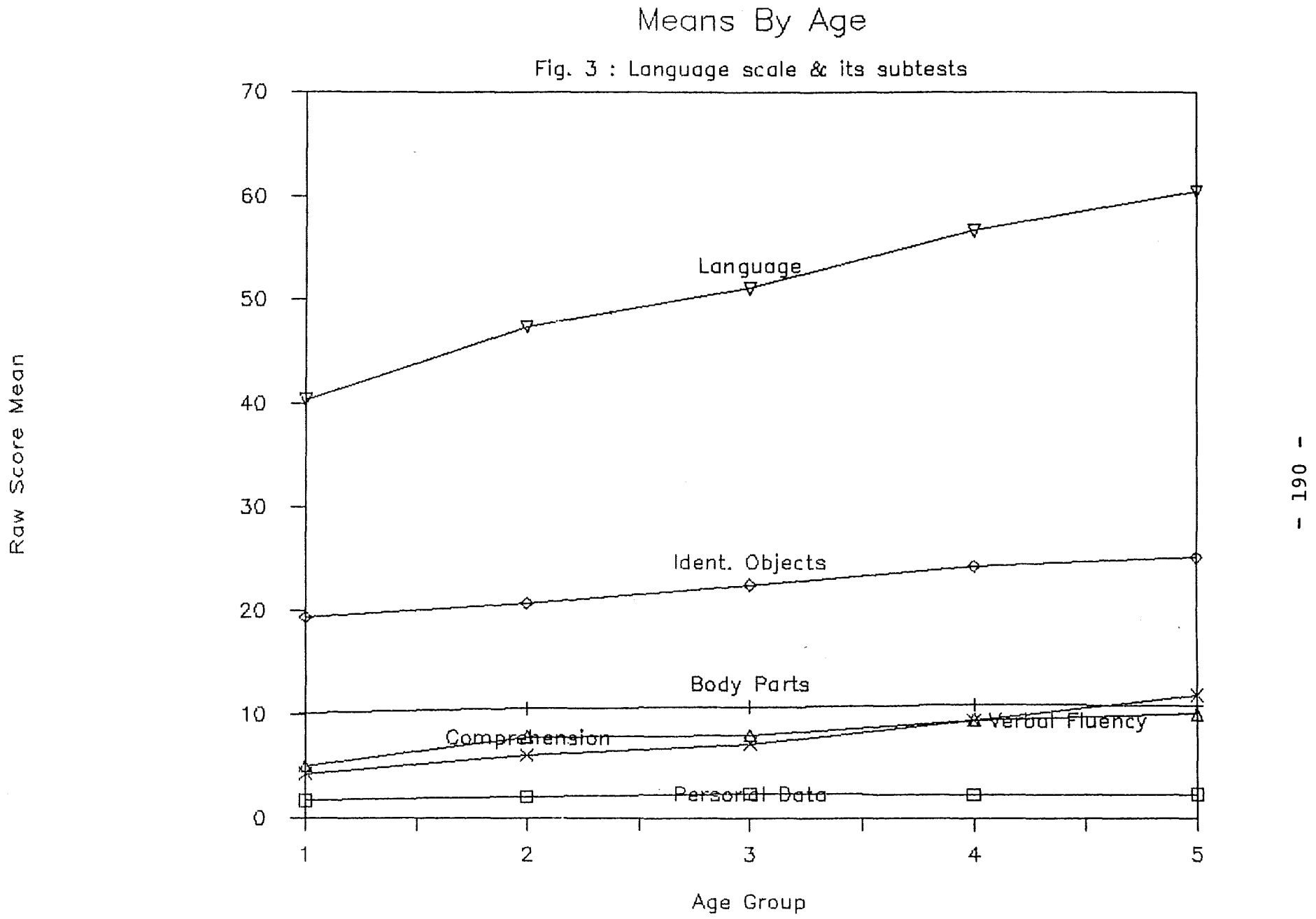
ble 7 (a) :

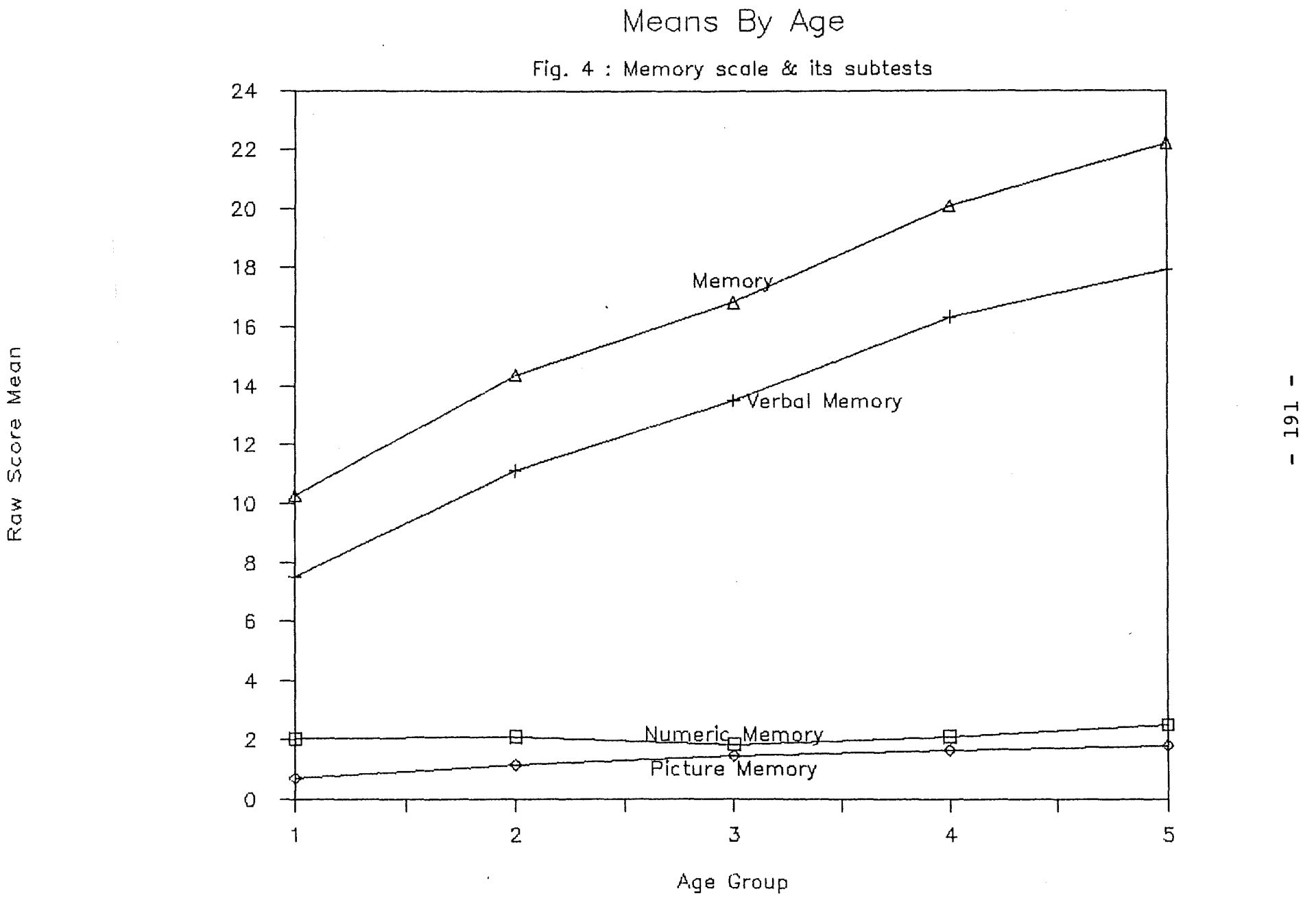
Means & standard Deviations of Sums of
Memory, Concepts, Motor, Language, and Total Readiness score
By Age Group

	Age									
	1 (N=47)		2 (N=46)		3 (N=53)		4 (N=51)		5 (N=51	
ale	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
mory	10.26	5.67	14.37	5.87	16.81	5.95	20.08	4.86	22.22	3.76
ncepts	29.72	10.96	38.96	9.39	41.89	8.90	44.04	7.02	45.45	9.65
tor	17.21	4.62	26.78	6.58	32.06	6.19	37.51	6.97	43.67	6.05
nguage	40.45	10.69	47.48	9.21	51.09	7.18	56.65	6.82	60.41	7.36
tal Readiness	97.64	23.70	127.62	23.9	141.81	20.0	158.31	19.2	171.82	21.5


Means By Age
Fig. 1 : Motor scale & its subtests
Raw Score Mean
45
40
35
30
25
20
15
10
5
0
Motor
Leg Co-ord
Eye Hand Co-ord
Object Manipulation
1
2
3
4
5
Age Group


Means By Age
Fig. 2 : Concept scale & its subtests
Raw Score Mean
50
45
40
35
30
25
20
15
10
5
0
Concept
Shapes
Colours
Ident. Concepts
Positioning
1
2
3
4
5
Age Group


Means By Age
Fig. 3 : Language scale & its subtests
70
60
50
40
30
20
10
0
Raw Score Mean
Language
Ident. Objects
Body Parts
Comprehension
Verbal Fluency
Personal Data
1
2
3
4
5
Age Group


Means By Age
Fig. 4 : Memory scale & its subtests
Raw Score Mean
24
22
20
18
16
14
12
10
8
6
4
2
0
Memory
Verbal Memory
Numeric Memory
Picture Memory
1
2
3
4
5
Age Group

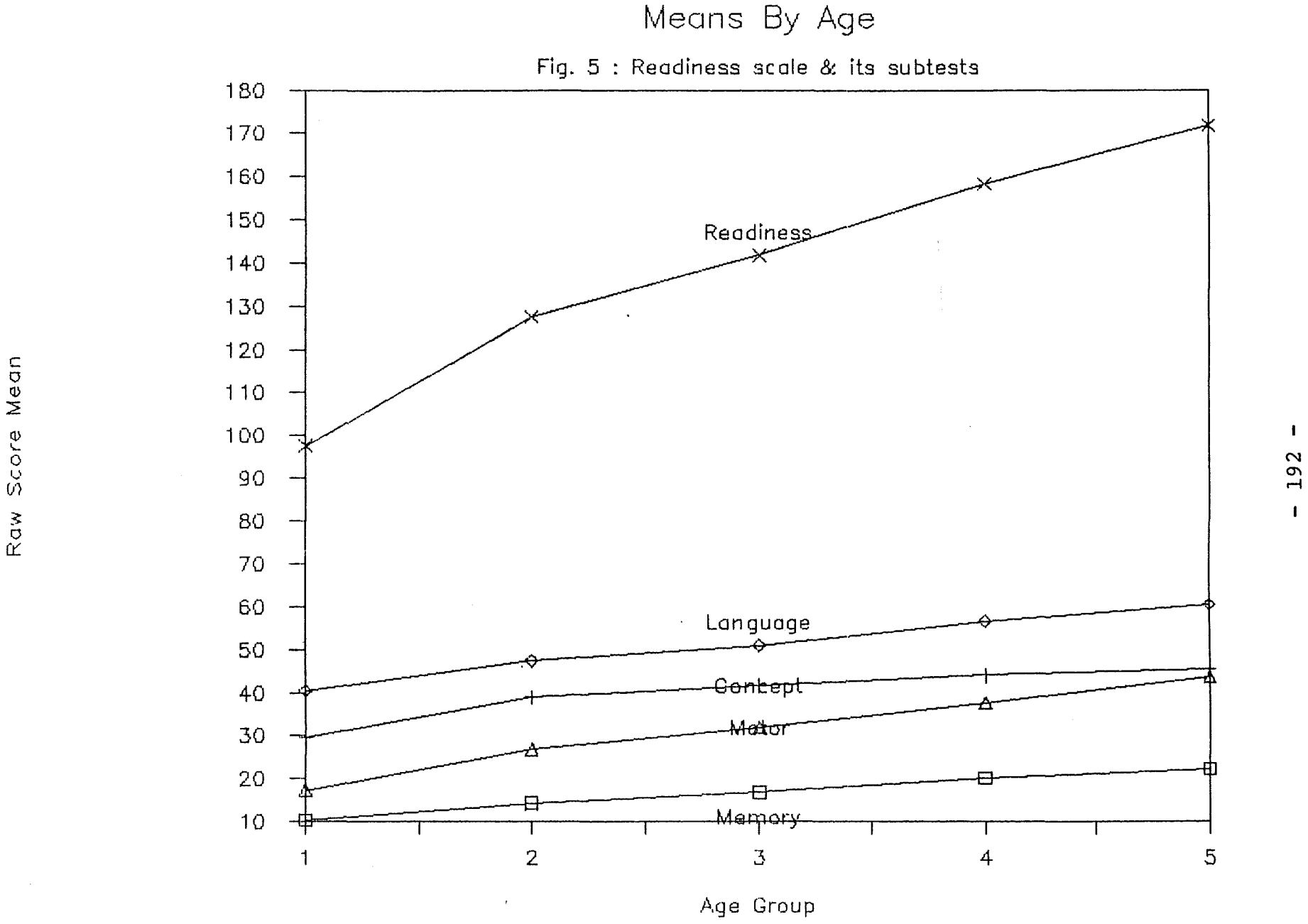


Fig. 5 : Readiness scale & its subtests

able 8 :

Means & standard Deviations By Social Economic Level

	Social Economic Level					
	(N = 1 81)		(N = 2 86)		(N = 3 81)	
Scale	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Personal Data	2.23	.76	2.19	.64	2.11	.57
Object Manipulation	9.36	3.14	8.58	2.90	7.57	2.27
Block Building	6.44	1.22	6.47	1.00	6.37	1.29
Puzzles	2.91	2.50	2.12	2.35	1.21	1.66
Body Parts	10.56	.96	10.71	1.25	10.79	.52
Shapes	19.01	7.17	19.90	6.30	19.11	7.33
Colours	15.04	5.41	14.42	5.92	13.47	5.95
Identifying Concepts	2.86	1.08	2.87	1.10	2.59	1.09
Positioning	3.80	1.02	3.86	1.03	3.65	.92
Leg Co-ordination	6.63	6.38	16.48	6.78	15.65	5.86
Walking	9.65	2.84	9.03	3.13	8.79	2.97
Jump. Skip	3.38	2.47	3.87	2.56	3.43	2.01
Balancing	3.59	1.86	3.50	1.94	3.43	1.67
Eye Hand Co-ord.	7.68	2.97	6.80	2.80	6.57	3.03
Ball Thraw	1.75	1.34	1.38	1.11	1.33	1.19
Draw	3.06	1.17	2.95	1.33	2.68	1.31
Cut & Fold	2.86	1.27	2.47	1.31	2.56	1.28
Ident. Objects	23.21	4.47	23.31	3.73	21.06	4.55
I.O. By Name	10.27	2.24	10.72	1.89	10.54	7.26
I.O. By Naming	6.74	1.24	6.65	1.24	5.91	1.38
I.O. By Use	6.12	1.72	6.12	1.60	5.64	1.74
Pictorial Memory	2.28	.96	2.15	.87	1.94	1.00
Comprehension	7.60	3.44	8.85	3.58	8.02	3.10
Verbal Fluency	6.69	4.44	8.80	4.77	8.10	3.75
Verbal Memory	13.17	6.17	13.59	6.12	13.44	5.34
Numeric Memory	1.43	.77	1.36	.73	1.31	.77
Memory	16.89	6.94	17.10	7.02	16.69	6.15
Concepts	40.72	11.37	41.05	10.59	38.83	10.10
Motor	33.67	11.27	31.86	11.33	29.79	9.69
Language	50.30	11.47	53.86	11.05	50.09	9.37
Readiness	141.57	35.40	143.87	35.17	135.40	28.55

ble 8 (a) :

Means & standard Deviations of Sums of
Memory, Concepts, Motor, Language, and Total Readiness score
By Social Economic Level

	Social Economic Level					
	1 (N = 81)		2 (N = 86)		3 (N = 81)	
Scale	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Memory	16.89	6.94	17.10	7.02	16.69	6.15
Concepts	40.72	11.37	41.05	10.59	38.83	10.10
Motor	33.67	11.27	31.86	11.33	29.79	9.69
Language	50.30	11.47	53.86	11.05	50.09	9.37
Total Readiness	141.57	35.40	143.87	35.17	135.40	28.55

Interpretation of Standardization Data

To guard against any sex, age, and/or socio-economic bias, the normative data was tested through the use of various F and T tests. The following results were obtained:

1. **Sex.** A T-test was run between the male and female means on all of the fifteen subscales, on the four major scales, and on the total Readiness Scale. No significant differences were observed between the means except on the eye-hand co-ordination (fine motor) subscale, and on some parts of the identifying objects subscale. Table 9 reports the T probability and its significance at the .05 confidence level. As no significant differences were observed on the major scales (M,L,C,& Me) and on the total Readiness Scale, it can be concluded that the LPRT does not carry any sex bias.

2. **Age.** Similarly, F-test was run between the means of the five age groups on all of the fifteen subscales, on the four major scales, and on the total

Table 9 :

P-values of T-test & Significance By Sex

Scale	P-Value	Sig
Personal Data	0.340	N[1]
Object Manipulation	0.450	N
Block Building	0.002	S[2]
Puzzles	0.728	N
Body Parts	0.000	S
Shapes	0.691	N
Colours	0.510	N
Identifying Concepts	0.392	N
Positioning	0.196	N
Leg Co-ordination	0.242	N
Walking	0.607	N
Jump. Skip	0.608	N
Balancing	0.514	N
Eye Hand Co-ord.	0.038	S
Ball Thraw	0.353	N
Draw	0.050	S
Cut & Fold	0.010	S
Ident. Objects	0.055	N
I.O. By Name	0.000	S
I.O. By Naming	0.930	N
I.O. By Use	0.000	S
Pictorial Memory	0.980	N
Comprehension	0.841	N
Verbal Fluency	0.820	N
Verbal Memory	0.786	N
Numeric Memory	0.870	N
Memory	0.611	N
Concepts	0.480	N
Motor	0.978	N
Language	0.573	N
Readiness	0.942	N

[1] : Not Significant at .05 level
[2] : Significant at .05 level

Readiness score. There was a significant difference between the means of the various age groups. Table 10 reports the F values and their significance at the .05 confidence level. Each of the scales discriminated well between the various age groups, which supports and enhances the LPRT's construct validity. The means for all the scales increased significantly by age and in a linear fashion. Tables 7 and 10, and Figures 1-5 clearly reveal this linearity.

3. Socio-economic level. An F-test was run between the means of the various SELs and no significant differences were noted on the R, M, Me, or C scales (Table 11). Significant differences were, however, observed on the Language Scale (L) and on the Puzzle subsection of the Object Manipulation Subscale, Therefore, it can be concluded that, except for the Language Scale, all the scales do not discriminate

Table 10 :

F-Probabilities & Significance By Age

Scale	F-Prob
Personal Data	0.000
Object Manipulation	0.000
Block Building	0.000
Puzzles	0.000
Body Parts	0.000
Shapes	0.010
Colours	0.000
Identification Concepts	0.000
Positioning	0.000
Leg Co-ordination	0.000
Walking	0.000
Surp. Ship	0.000
Balancing	0.000
Eye Hand Co-ord.	0.000
Ball Thraw	0.000
Draw	0.000
Cut & Fold	0.000
Ident. Objects	0.000
I.O. By Name	0.020
I.O. By Naming	0.000
I.O. By Use	0.000
Pictorial Memory	0.010
Comprehension	0.000
Verbal Fluency	0.000
Verbal Memory	0.000
Numeric Memory	0.000
Memory	0.000
Concepts	0.000
Motor	0.000
Language	0.000
Readiness	0.000

Table 11 :

F-Probabilities & Significance By Social Economic Level

Scale	F-Prob	Sig
Personal Data	0.4910	N[1]
Object Manipulation	0.0000	S[2]
Block Building	0.8620	N
Puzzles	0.0000	S
Body Parts	0.2940	N
Shapes	0.6640	N
Colours	0.2210	N
Identification Concepts	0.1780	N
Positioning	0.3890	N
Leg Co-ordination	0.5750	N
Walking	0.1660	N
Surp. Ship	0.3360	N
Balancing	0.8550	N
Eye Hand Co-ord.	0.0410	S
Ball Thraw	0.0560	S
Draw	0.1440	N
Cut & Fold	0.1160	N
Ident. Objects	0.0008	S
I.O. By Name	0.8090	N
I.O. By Naming	0.1150	N
I.O. By Use	0.0001	S
Pictorial Memory	0.0660	N
Comprehension	0.0550	N
Verbal Fluency	0.0070	S
Verbal Memory	0.8970	N
Numeric Memory	0.5830	N
Memory	0.9240	N
Concepts	0.3590	N
Motor	0.0750	N
Language	0.0380	S
Readiness	0.2400	N

[1] : Not Significant at .05 level

[2] : Significant at .05 level

between various SELs, and therefore can be reliably used with children from different social backgrounds.

In order to check further on the kind of distribution the normative data forms, a series of histograms were prepared for the population as a whole and for every age and sex group. Figures 6-35 represent the frequency of occurrence of each of R, M, L, C, and Me raw scores. As can be seen from the figures, the distribution is not normal or symmetrical except for the M. It tails off on both sides of the scales, especially on the L, R, and M scales. Therefore, we cannot assume a normal distribution of scores, and percentile equivalents cannot be readily inferred from the standard scores but have to be computed separately.

A close look at the histograms for every age group confirms the significant difference between the various age groups previously referred to. Figure 15,

which presents the histogram for Age I (2.5 - 3.0 years), is clearly skewed to the right, while Figure 35, which describes the histogram frequency for Age V, is skewed to the left.

CHAPTER VII

Evaluation and Reporting of Standardization Data

This Chapter presents an evaluation of the standardization data presented in Chapter VI, and reports standardized scores and percentiles for the major scales (R, L, C, M, and Me) and by age groups (1-5).

Evaluation of Data

The data reported in Chapter VI can be summarized as follows:

1. There were significant age differences on all scales and subscales of the LPRT.

2. There was no significant sex difference on any of the major scales (L, M, C, Me and R). Sex-related differences were observed, however, on the fine motor subscale of the Motor Scale.

3. There were no signigicant SEL differences except on the Language Scale.

4. The distribution of raw scores for the entire population and for every age group was not exactly normal.

What are the implications of these results ? Do they imply certain biases, or do they help to validate the instrument ? The following discussion hopes to give an objective evaluation of the normative data.

1. The concept of Readiness is developmental in nature, and a child's readiness increases with age. All the LPRT scales and subscales discriminated between the five age groups. Each mean increased with age and in a linear fashion, thus clearly emphasizing the construct validity of the instrument. Therefore, it can be concluded that the LPRT can sensitively discriminate between various ages even at 6-month intervals and at a time when development is very rapid.

2. Before looking into the implications of the sex differences on Scale IX (eye-hand co-ordination) and on the Block Building subscale, it is worth looking into the research findings and the literature on the issue of sex differences. A quick review of the literature reveals the following:

a. Available data on sex differences tend to underestimate the problem because the intellectual tests used are purposely designed to avoid discrimination between boys and girls. Possible bias favors boys, as in the latest version of the Stanford-Binet (Smiljanic, 1976). In test construction, an attempt is being made to balance items and to eliminate sex biases in items, thus reducing the differences between the score of females and males scores resulting from the different experiences of the two sexes (Gage & Berliner, 1984).

b. With respect to sex differences in cognitive functioning, one can note the following

findings: No dramatic differences in the sexes are noted when general intelligence is measured (Gage et al., 1984). With respect to specific cognitive functions, no consistent differences between females and males are noted except in three areas: quantitative skills, spatial relations, and verbal skills. These differences are observed and become significant only after age 13 or at the onset of adolescence (Maccoby & Jacklin, 1974; Peterson & Wittig, 1979). Fennema (1982) also confirmed that no important sex differences in math ability appear during the preschool years.

c. As to sex differences in perceptual motor skills, there is a clear difference between the sexes in the maturational role of neuromotor functions, females being uniformly more advanced (Waber, 1979). Developmentally, fine motor skills show the following pattern: (i) females are consistently more advanced, (ii) sex differences are more pronounced between 6 and

7 years of age, and (iii) sex differences diminish at puberty as males catch up with females. Sapir (1966) found significant sex differences in the fine motor development of preschoolers. In the tests of 4.5-year-old children, boys were found to mature faster than girls but without reaching the developmental level of girls on any perceptual task. The difference in the mean score between boys and girls at the 4 and 5 year level is significant, and girls are superior to boys in every preceptual motor function. Denckla (1974) also found that females show a maturational advantage over males in their ability to execute sequential motor activities. In conclusion, research findings support the view that there are sex differences on the perceptual motor tasks.

d. The most recent findings on the issue of sex differences reveal that, even if these differences exist--a controversial issue-- they are decreasing and disapperaring (Feingold, 1988).

On the whole, the evidence indicats that cognitive and linguistic sex differences do not exist, at least at the preschool level. They only appear by adolescence due to the different experiences encountered by males and females and to sex-role expectations. The story seems different when discussing perceptual motor skills as the research reveals female superiority in this area, especially at the preschool level. These conclusions support the sex findings on the LPRT. No significant sex differences were found on any of the major scales (M, L, Me, C, & R), except on the eye-hand co-ordination and on the block building subscales of the Motor Scale. Apparently the neuromotor functions of preschool girls are more advanced and therefore their performance on these tasks is better.

3. The effect of social class on development and on performance on various measures of cognitive and adaptive functioning has also been a popular topic for

research. The findings are controversial and greatly affected by the researcher's philosophy and thinking. But most agree that social background greatly affects the linguistic and verbal development of children (Adler, 1979; Anastasiou, 1982; Wells, 1979). Beginning early in life, from age 1 onward, middle and upper class children score higher than those from low-income families on practically all measures of language ability, including tests of vocabulary, sentence structure, sound discrimination, and articulation (Mussen, Conger, & Kagan, 1984).

These differences in language ability may be attributable largely to the contrast between the language environments of the middle and lower classes. In the crucial area of language, lower SEL children may have had little practice of how to put their thoughts and wishes into words or of how to listen and respond to others. Verbal impoverishment often contributes to cognitive impoverishment. Without books

and an early introduction to the value of reading, a further linguistic deficit opens up. The child from an impoverished background is at a massive disadvantage from every angle at the start of his formal education (Fontana, 1988).

On the other hand, middle class children come from homes where there are books and cultural interests, where they are often spoken to and read to. All of these activities help children greatly (lovell, 1983). Bernstein (1961, 1975) went on further in comparing middle and lower class language development. He argued that the restricted code used by lower socio-economic children (vs the elaborate one used by middle class children) places a limit on the complexity of their thinking by restricting them to concrete things in their present environment; thus, lower SEL children are less skilled in spatial and temporal relationships. This extreme socio-linguistic view, however, is not supported by others (Stubbs,

1983) who consider it to be an oversimplification. No matter to what limit this argument is carried, nobody can deny the importance of the link between the child's environment and the development of language.

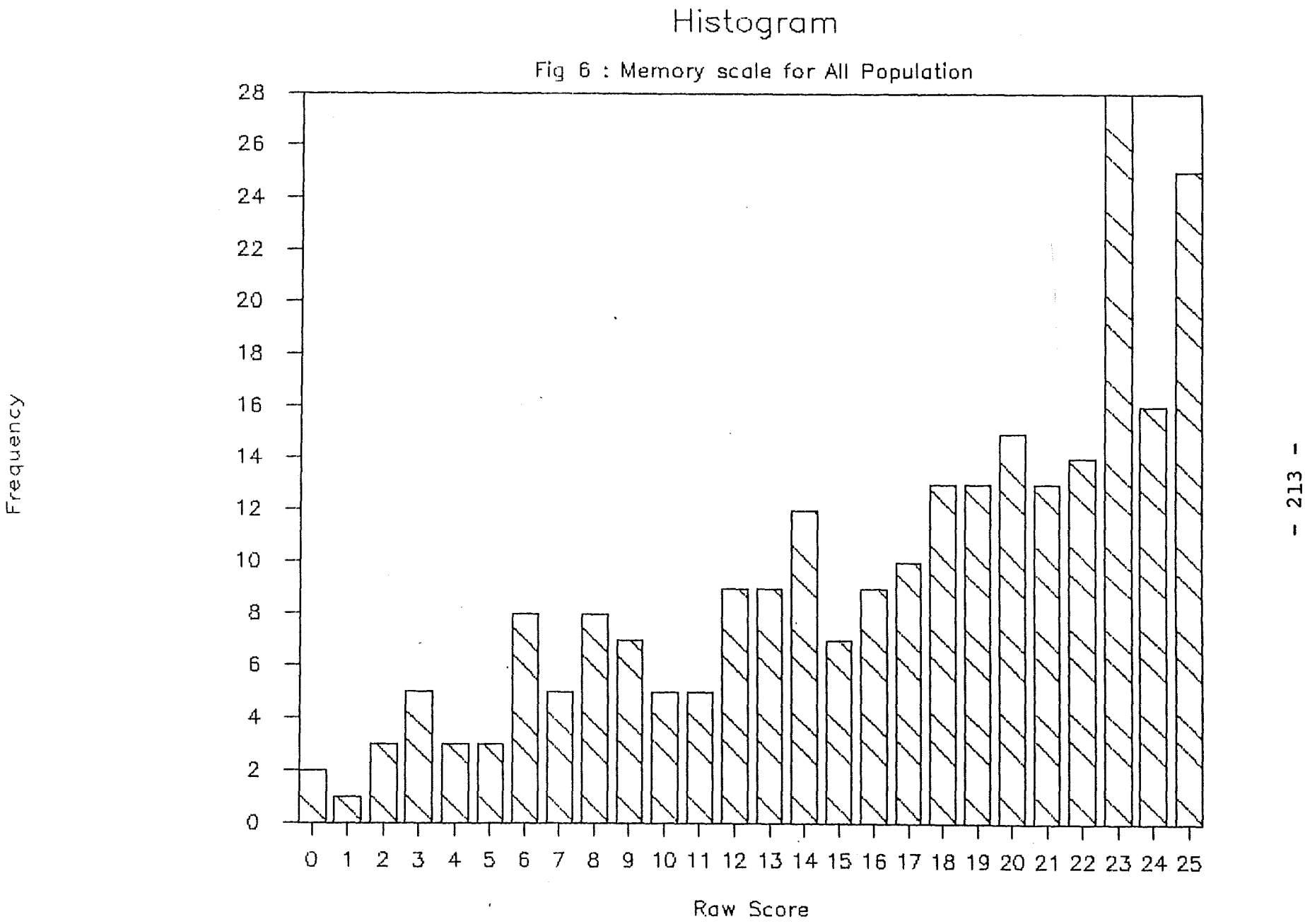
The LPRT socio-economic data supports the above arguments. There were no significant socio-economic differences on any of the LPRT scales except on the Language Scale. Clearly the Language of middle class preschoolers is superior to the language of those coming from lower socio-economic levels. During test construction, measures were taken to eliminate any socio-economic bias in the items. Items which discriminated between various SELs were discarded. The Language items were as culture-free as rendered possible by test objectives and specifications. Still, the performance of preschoolers from a lower SEL was considerably lower than that of middle class children, to be expected after the various arguments cited above.

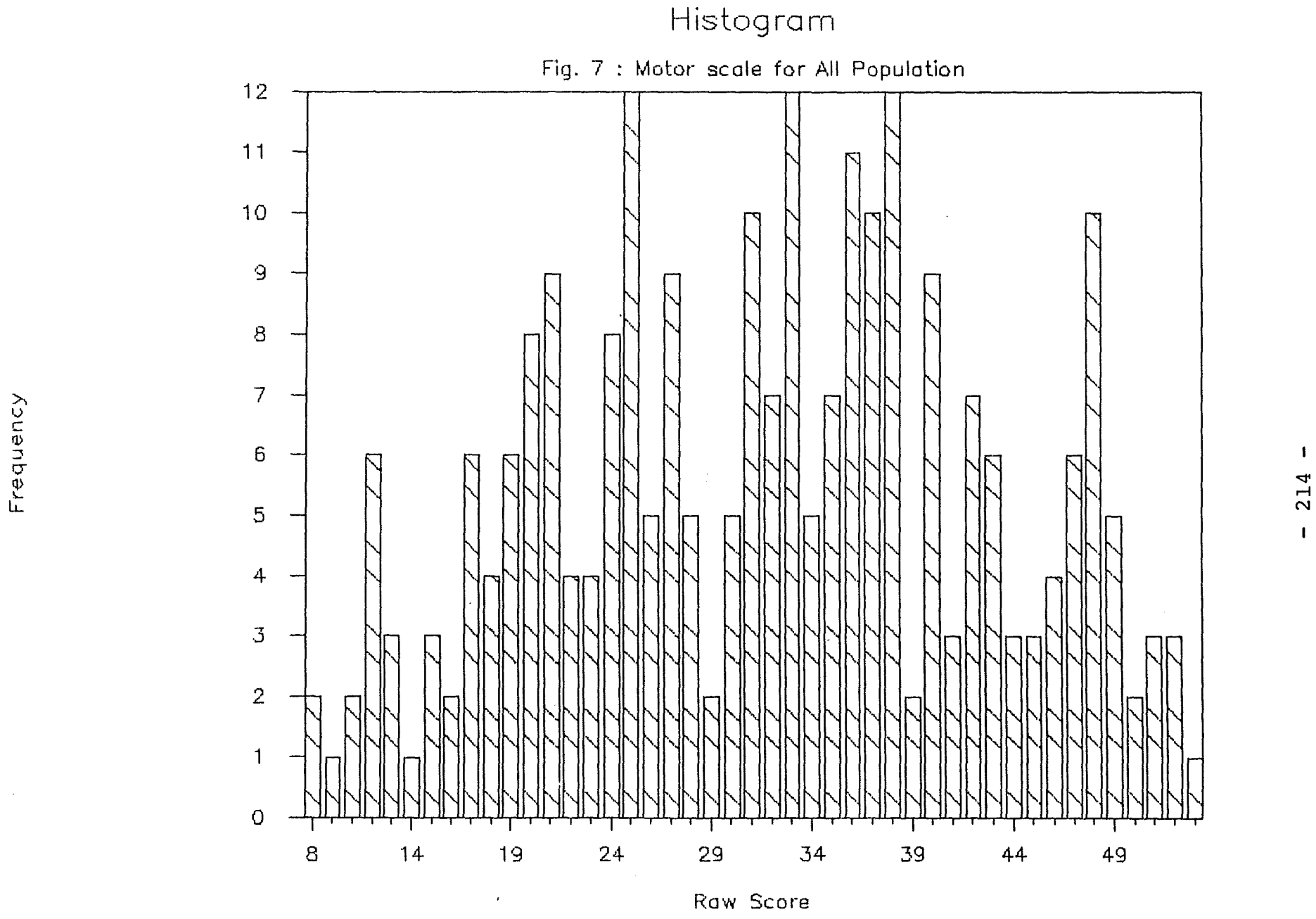
4. With respect to the shape of the distribution of raw scores as revealed by figures 6-35, it is clear that they are not symmetrically bell-shaped. Most of them tail off, while the Motor and Language Scales approximate a normal distribution. The non-symmetry of the distribution could be due to the size of the sample or to the nature of the test and / or the tasks it measures. Early investigators thought it natural that abilities be normally distributed. Most scientists now consider such a statement meaningless since the shape of the distribution depends on the scale of measurement and the experiences of the population, as well as on biological variation (Cronbach, 1984). By selecting various items, a test developer can change the shape of the score distribution, flattening the central hump, producing two humps, and so on.

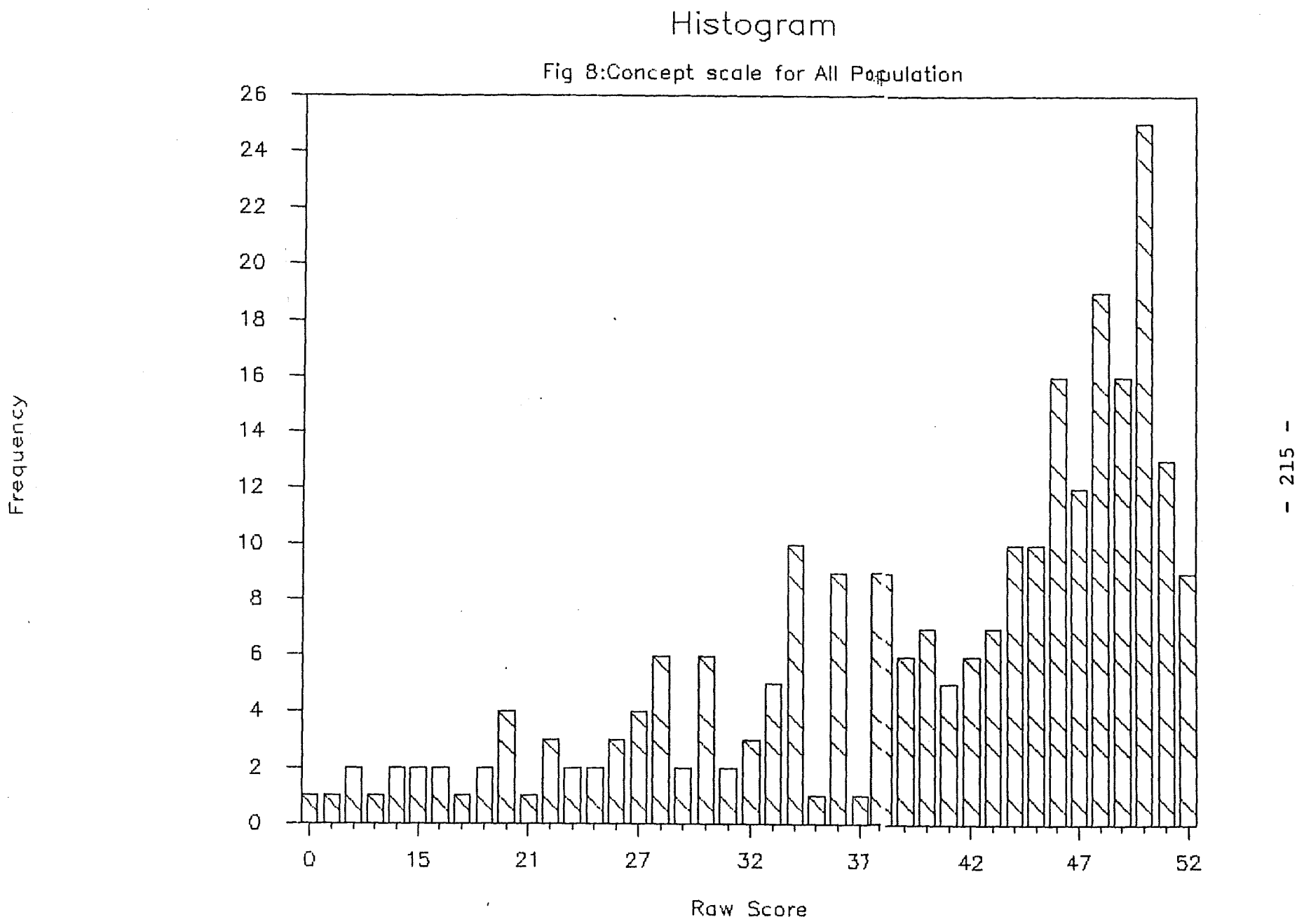
With respect to the LPRT, items were selected that were passed by a high proportion of the target

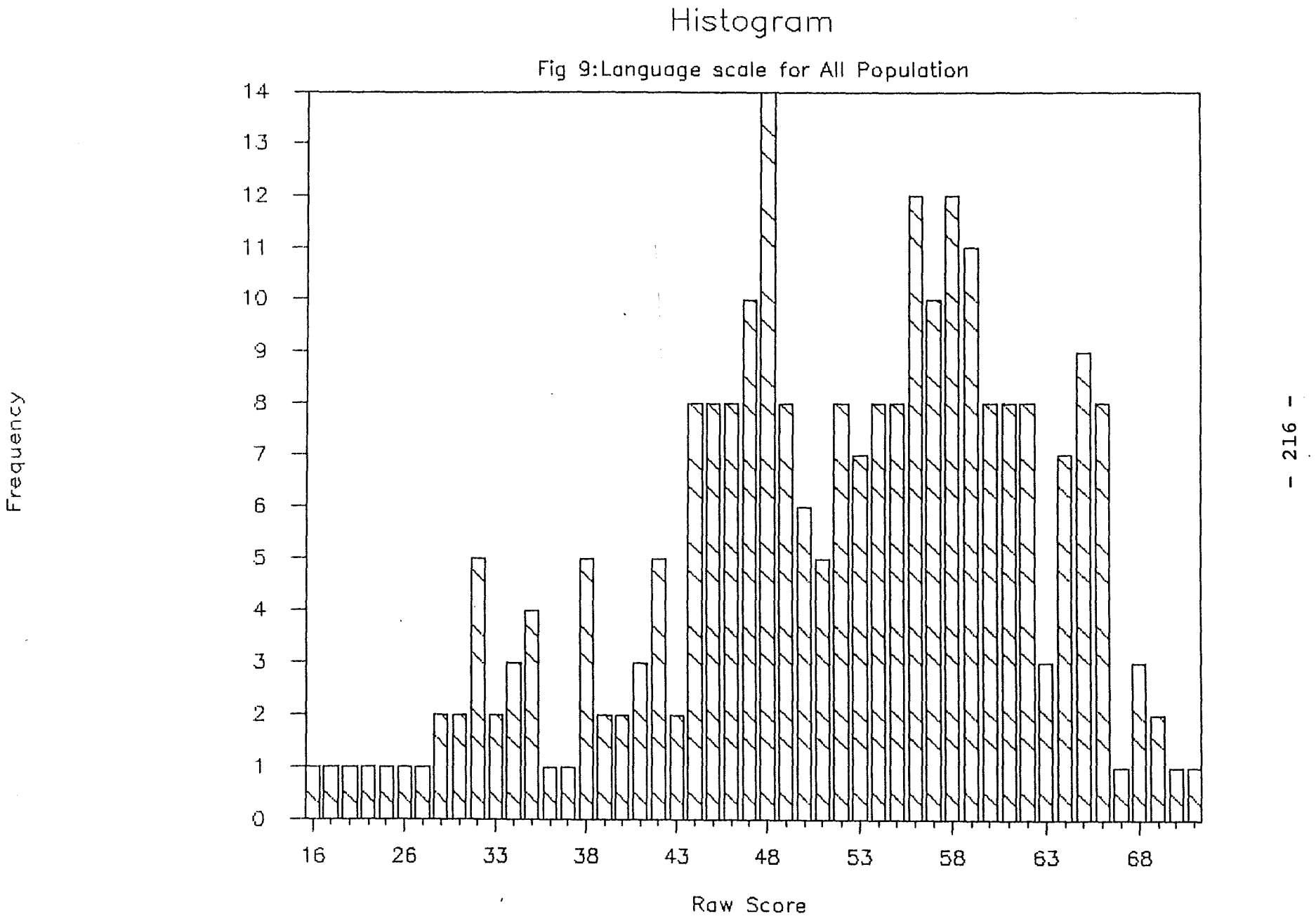
population, i.e. they were relatively easy items. The test was designed to discriminate at the low end of the continuum, i.e. to distinguish between children fuctioning far below age expectations and not ready to join school and those functioning within normal expectations. This criteria could have affected the distribution of scores.

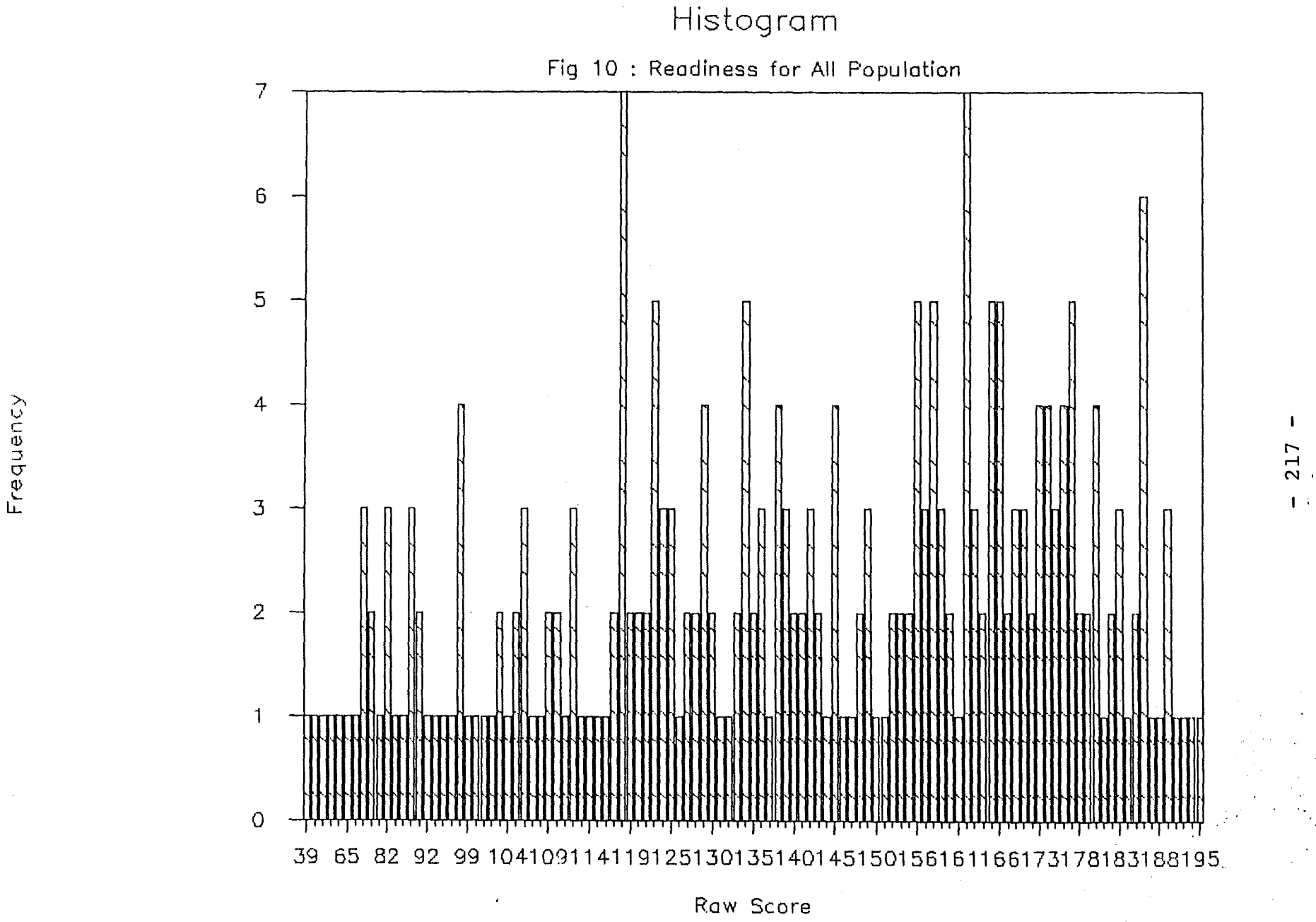
Based on the above arguments, we can conclude that the lack of normative data for the LPRT adds to the instrument's validity and value. The data does not pose any serious threat to its utility as an instrument designed to reliably assess a preschoolers' readiness, no matter what the sex, SEL, or age group of the child happens to be.


Histogram
Fig 6 : Memory scale for All Population
Frequency
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
Raw Score


Histogram
Fig. 7 : Motor scale for All Population
Frequency
12
11
10
9
8
7
6
5
4
3
2
1
0
8
14
19
24
29
34
39
44
49
Raw Score


Histogram
Fig 8:Concept scale for All Population
Frequency
26
24
22
20
18
16
14
12
10
8
6
4
2
0
0
15
21
27
32
37
42
47
52
Raw Score


Histogram
Fig 9:Language scale for All Population
Frequency
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
16
26
33
38
43
48
53
58
63
68
Raw Score


Histogram
Fig 10 : Readiness for All Population
Frequency
0
1
2
3
4
5
6
7
39 65 82 92 99 104109114119125130135140145150156161166173178183188195
Raw Score

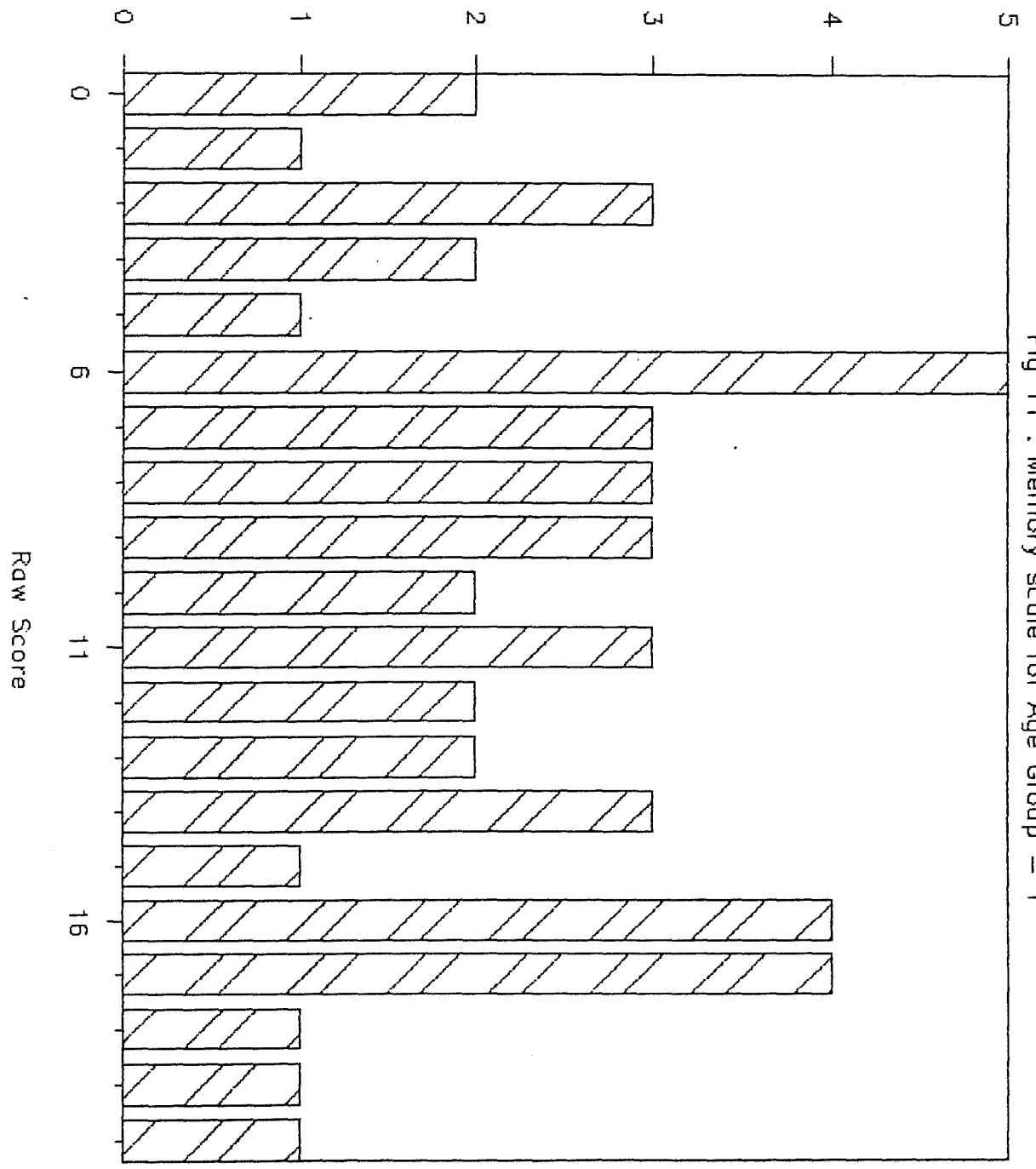


Fig 11 : Memory scale for Age Group = 1

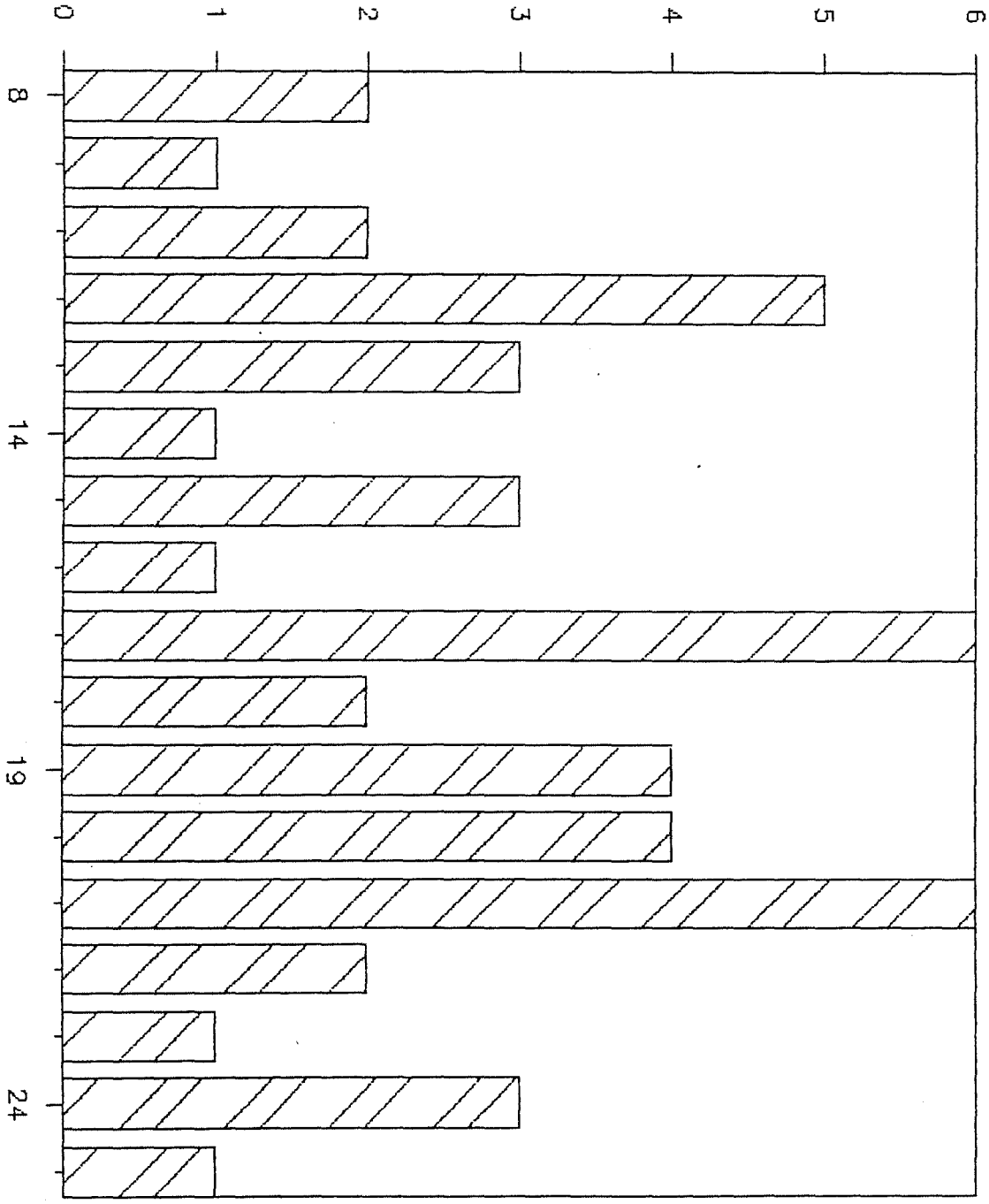
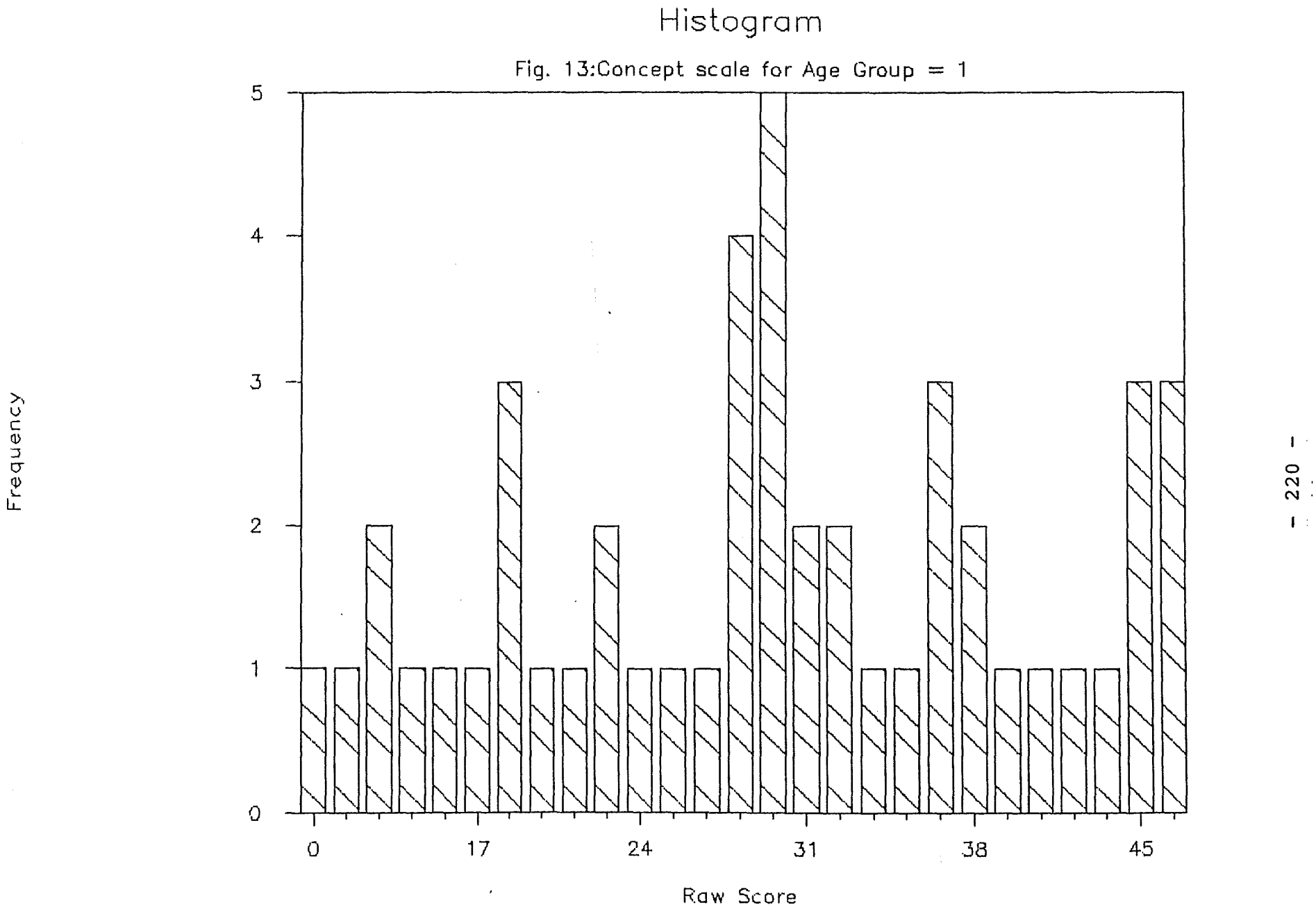


Fig. 12 : Motor scale for Age Group = 1


Histogram
Fig. 13:Concept scale for Age Group = 1
Frequency
5
4
3
2
1
0
0
17
24
31
38
45
Raw Score

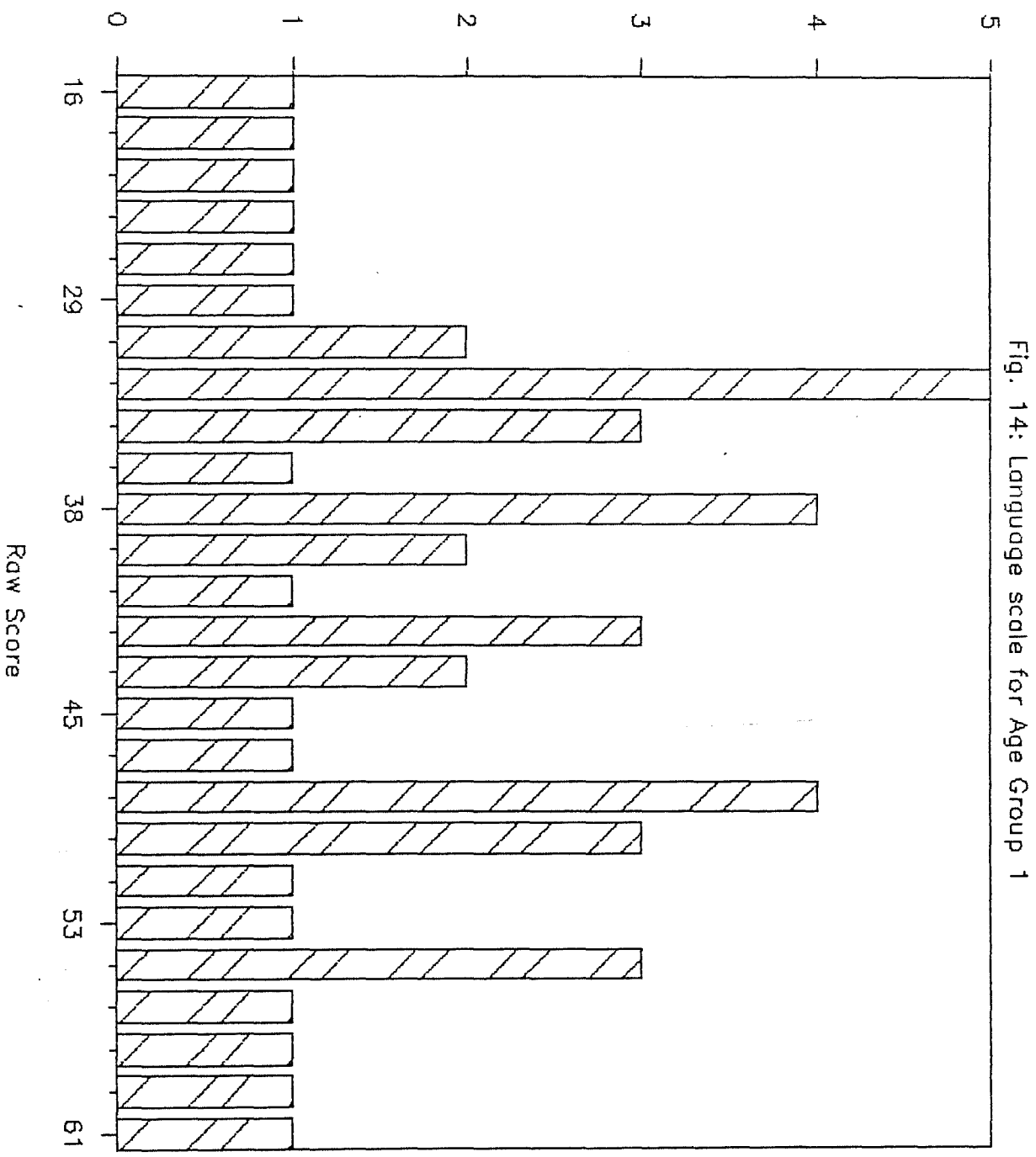
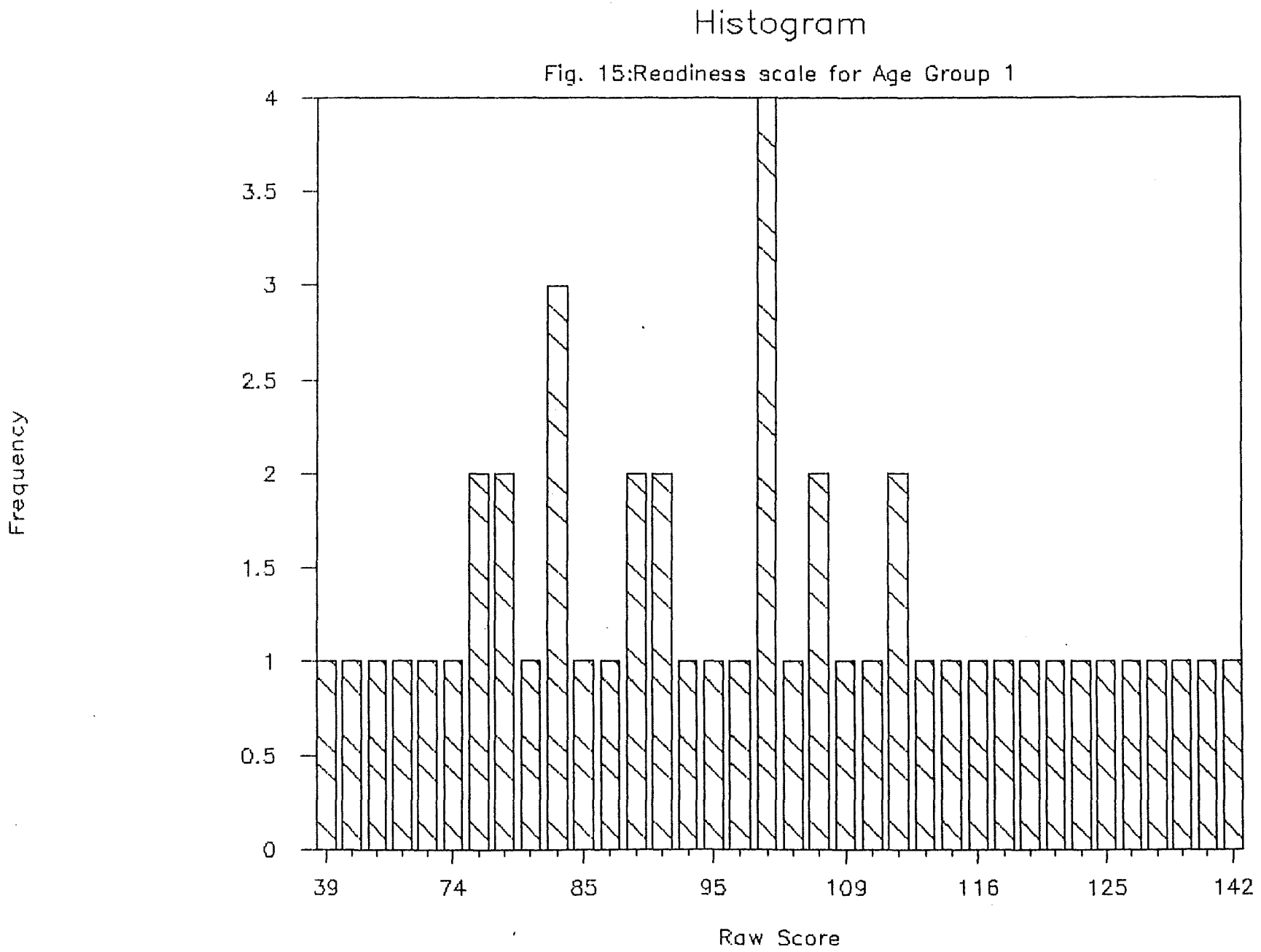


Fig. 14: Language scale for Age Group 1


Histogram
Fig. 15:Readiness scale for Age Group 1
Frequency
4
3.5
3
2.5
2
1.5
1
0.5
0
39
74
85
95
109
116
125
142
Raw Score

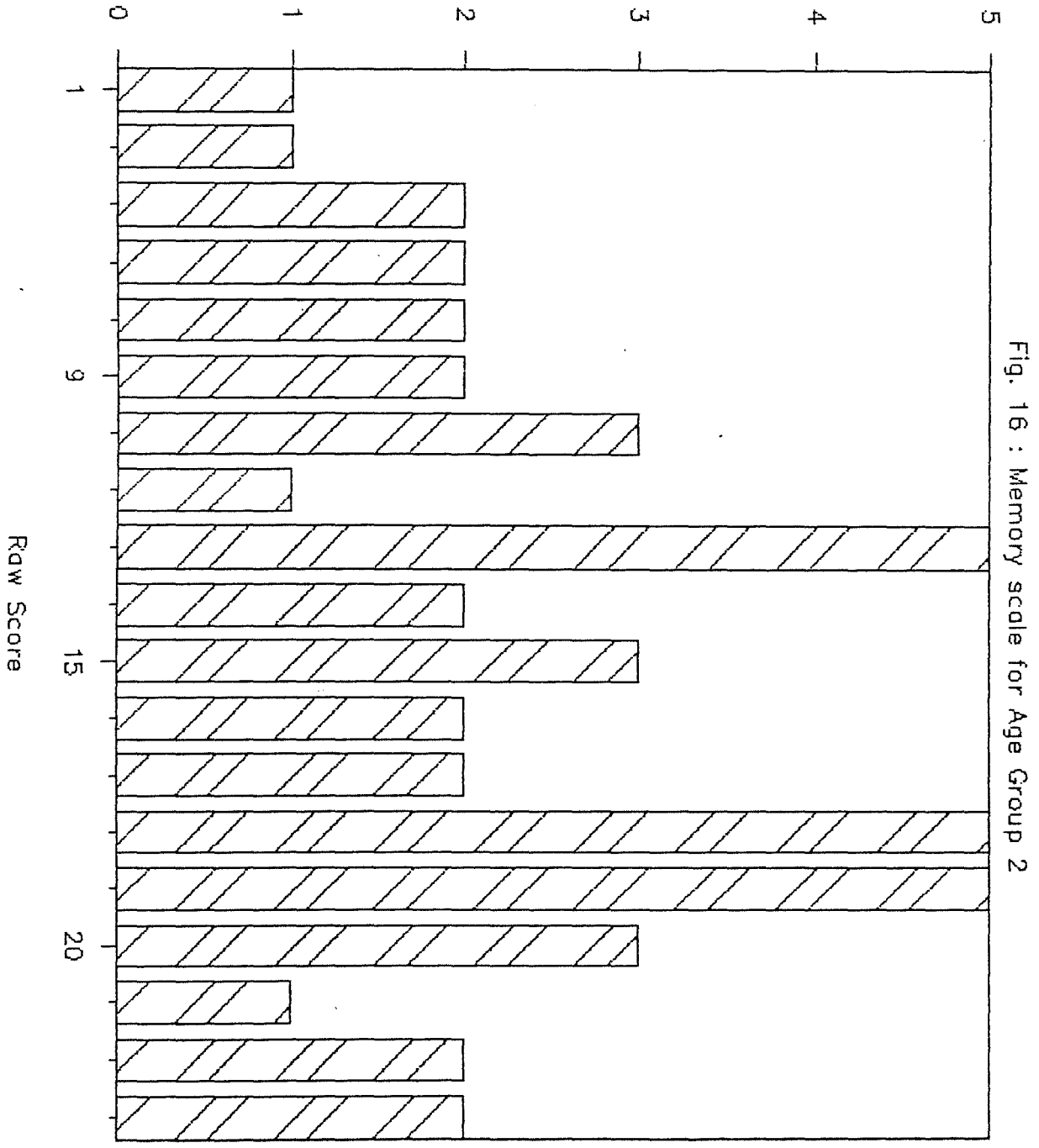


Fig. 16 : Memory scale for Age Group 2

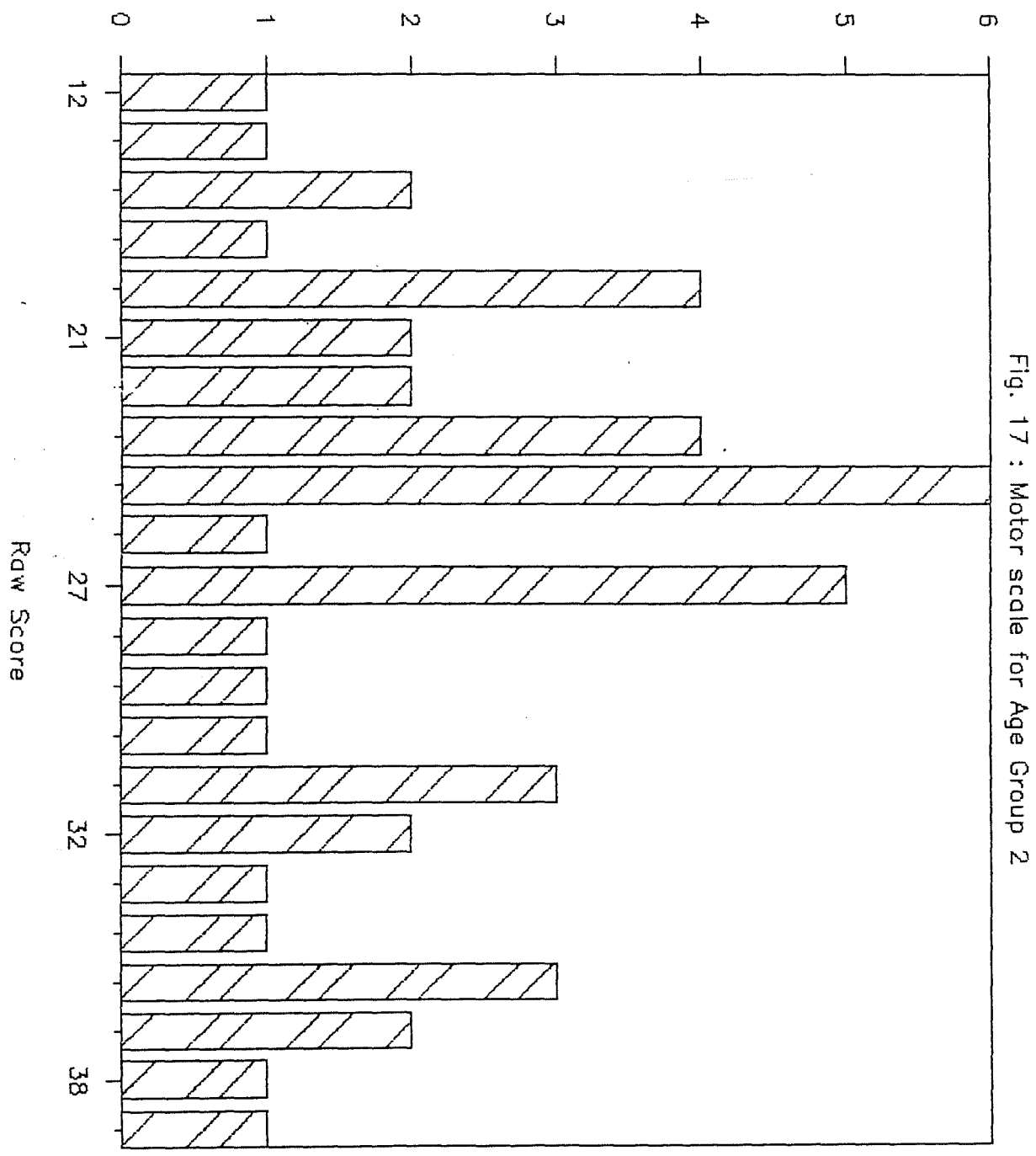
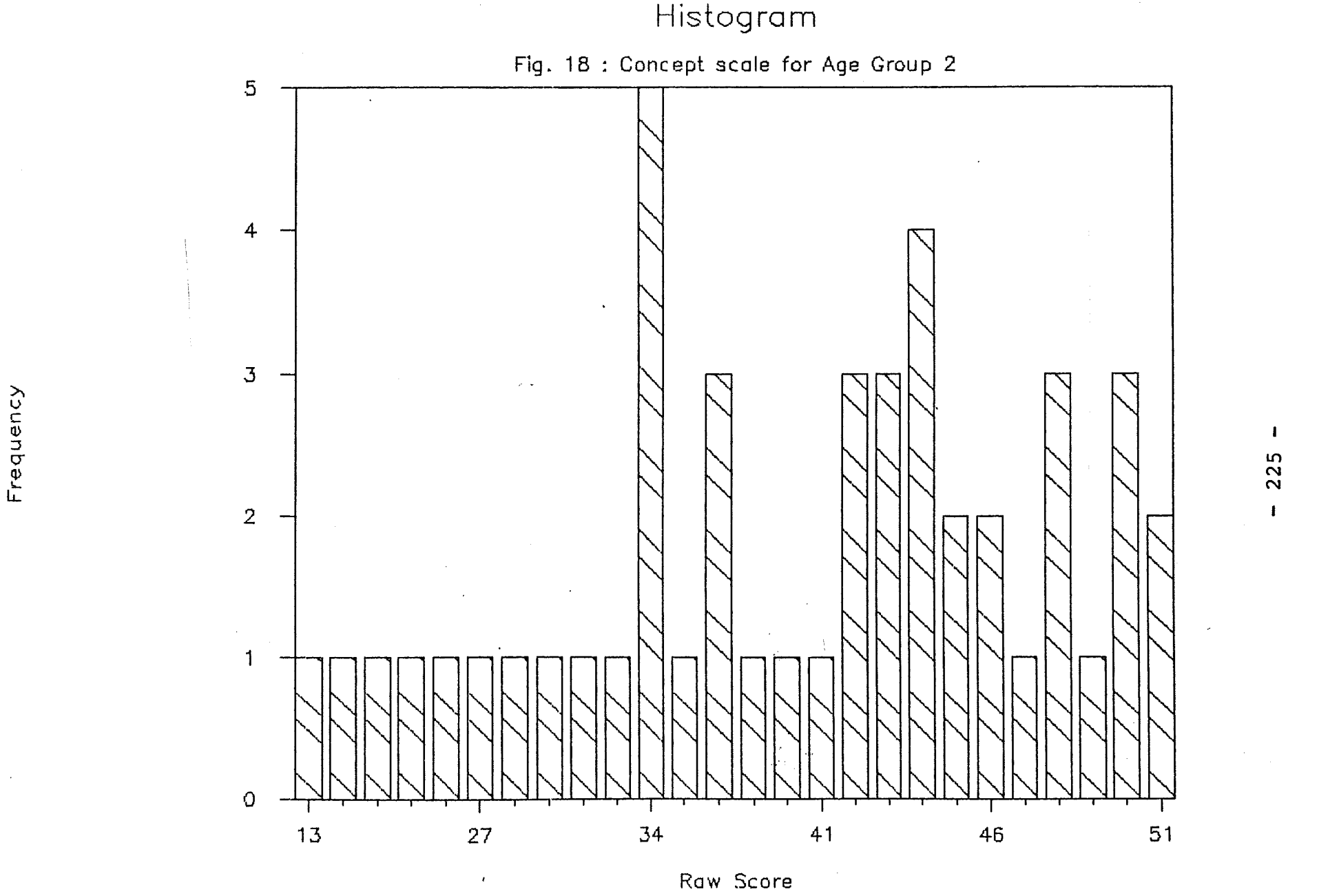
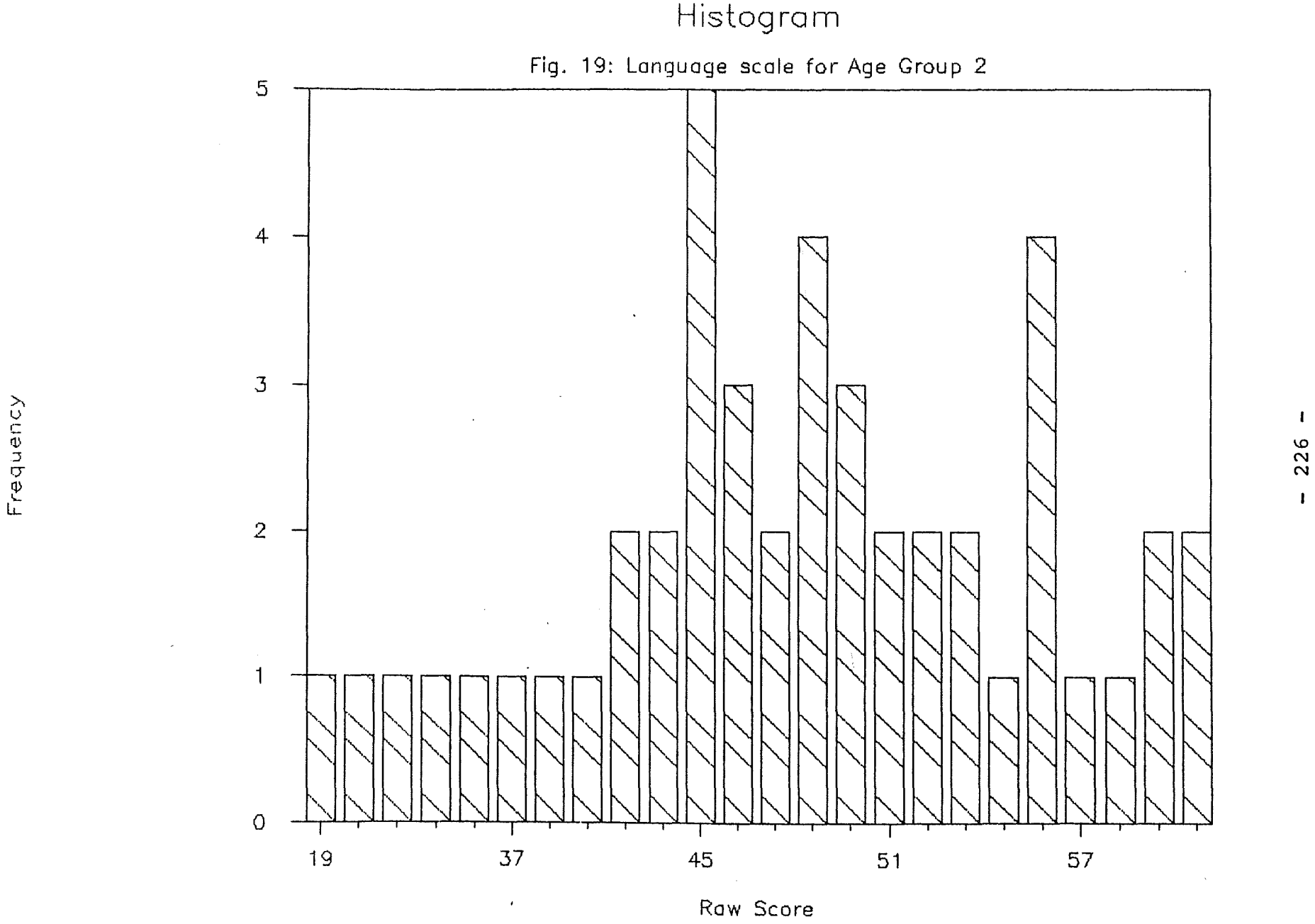
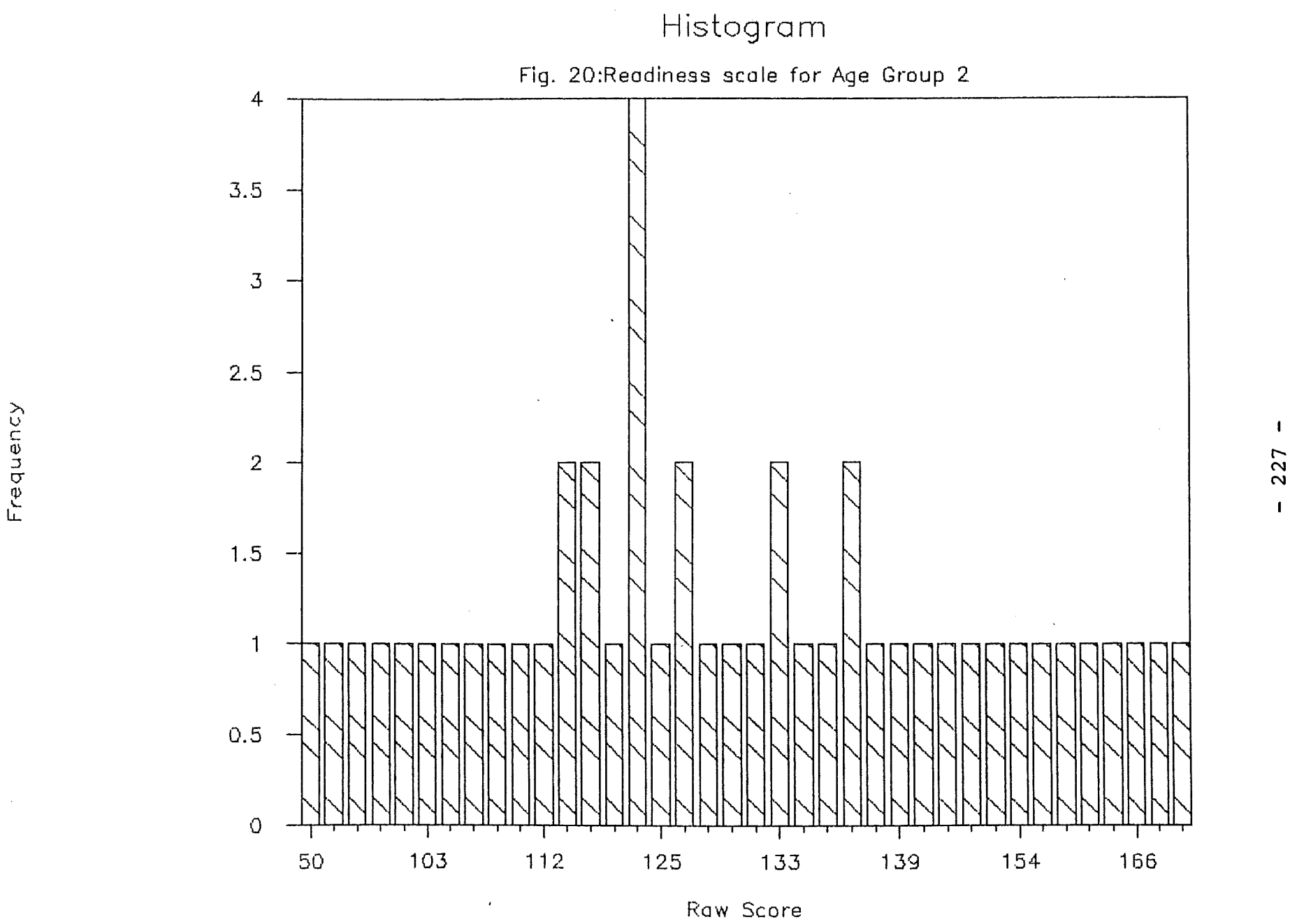


Fig. 17 : Motor scale for Age Group 2


Histogram
Fig. 18 : Concept scale for Age Group 2
Frequency
0
1
2
3
4
5
13
27
34
41
46
51
Raw Score


Histogram
Fig. 19: Language scale for Age Group 2
Frequency
5
4
3
2
1
0
19
37
45
51
57
Raw Score


Histogram
Fig. 20:Readiness scale for Age Group 2
Frequency
4
3.5
3
2.5
2
1.5
1
0.5
0
50
103
112
125
133
139
154
166
Raw Score

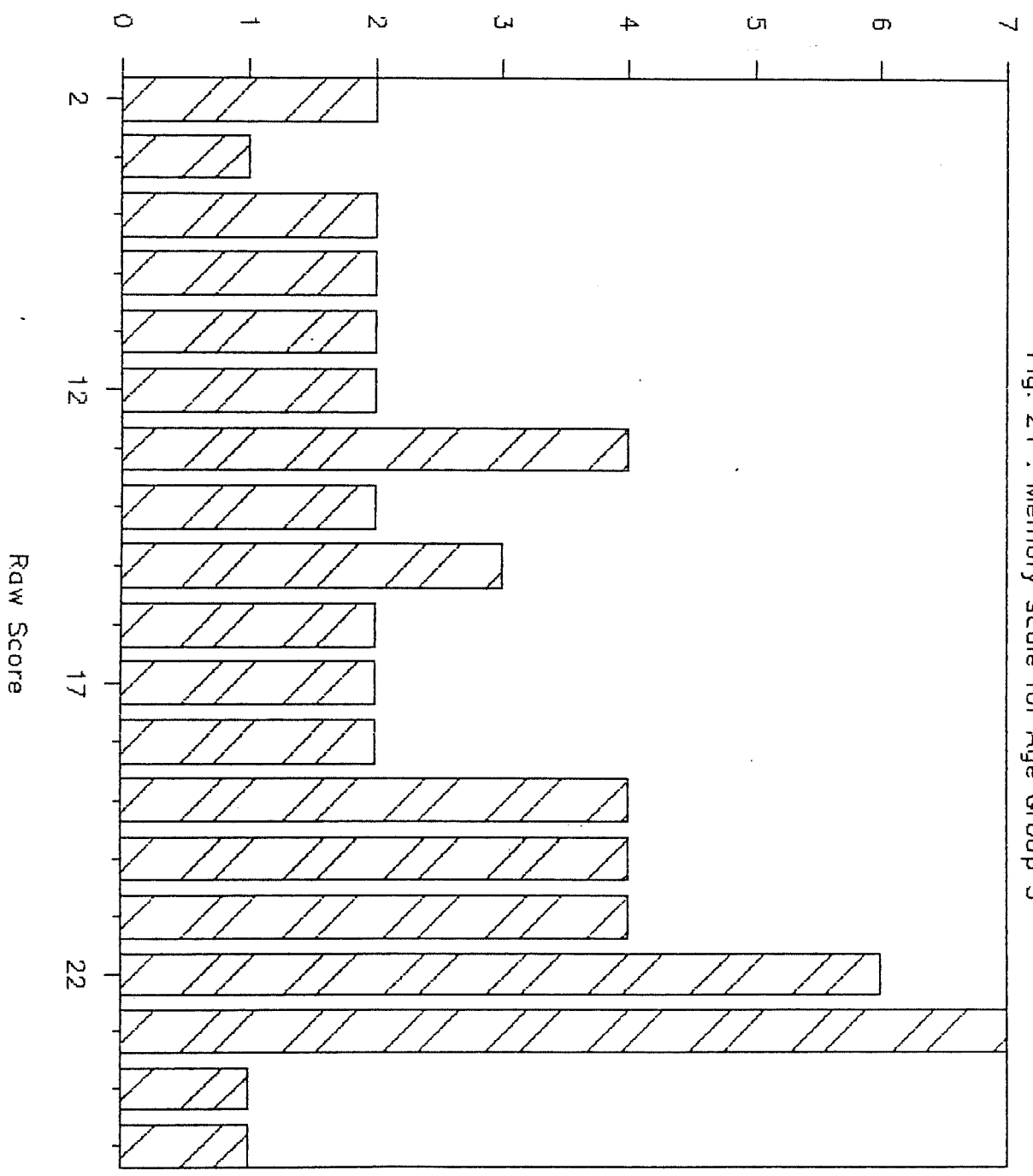


Fig. 21 : Memory scale for Age Group 3

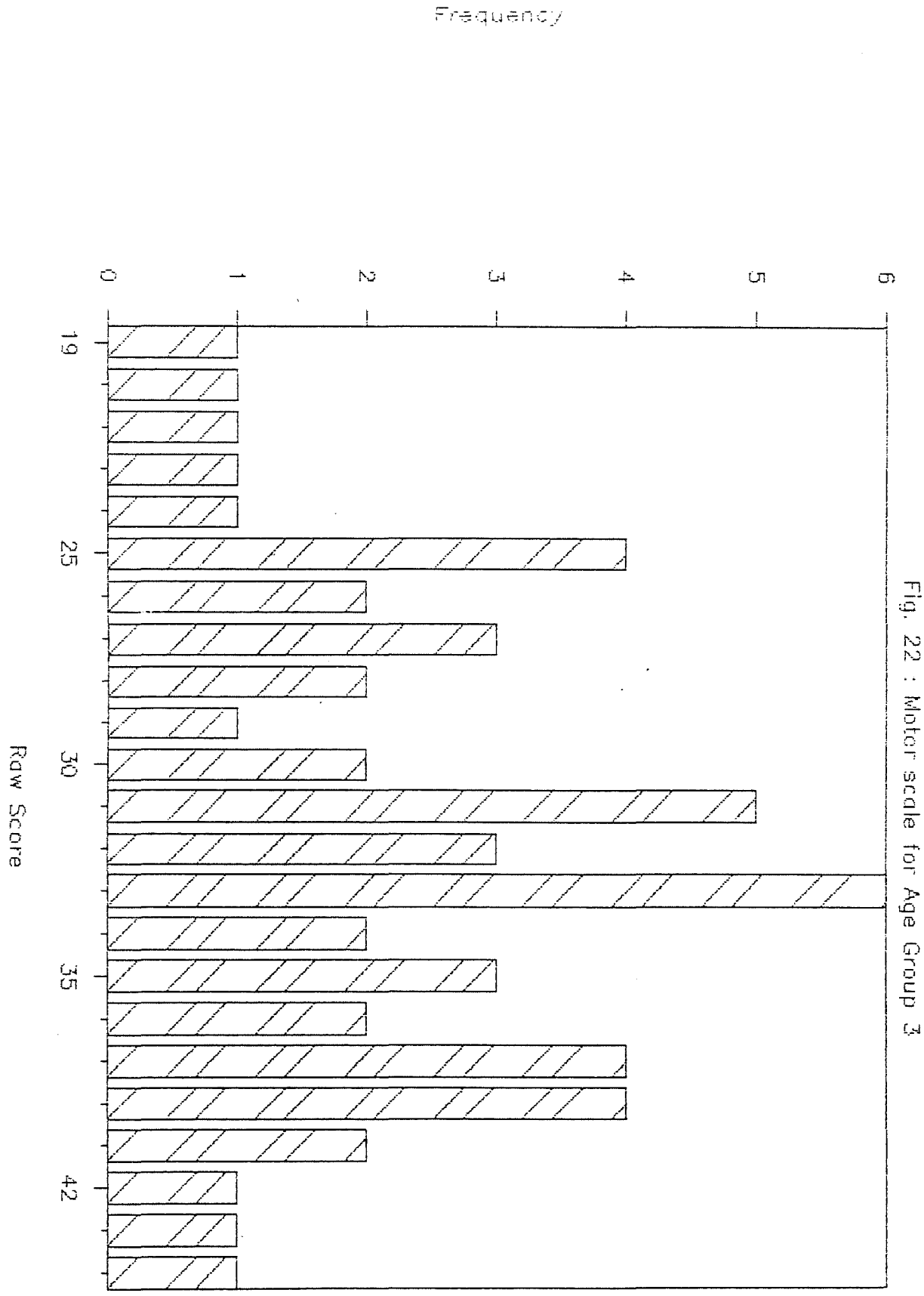


Fig. 22 : Motor scale for Age Group 3

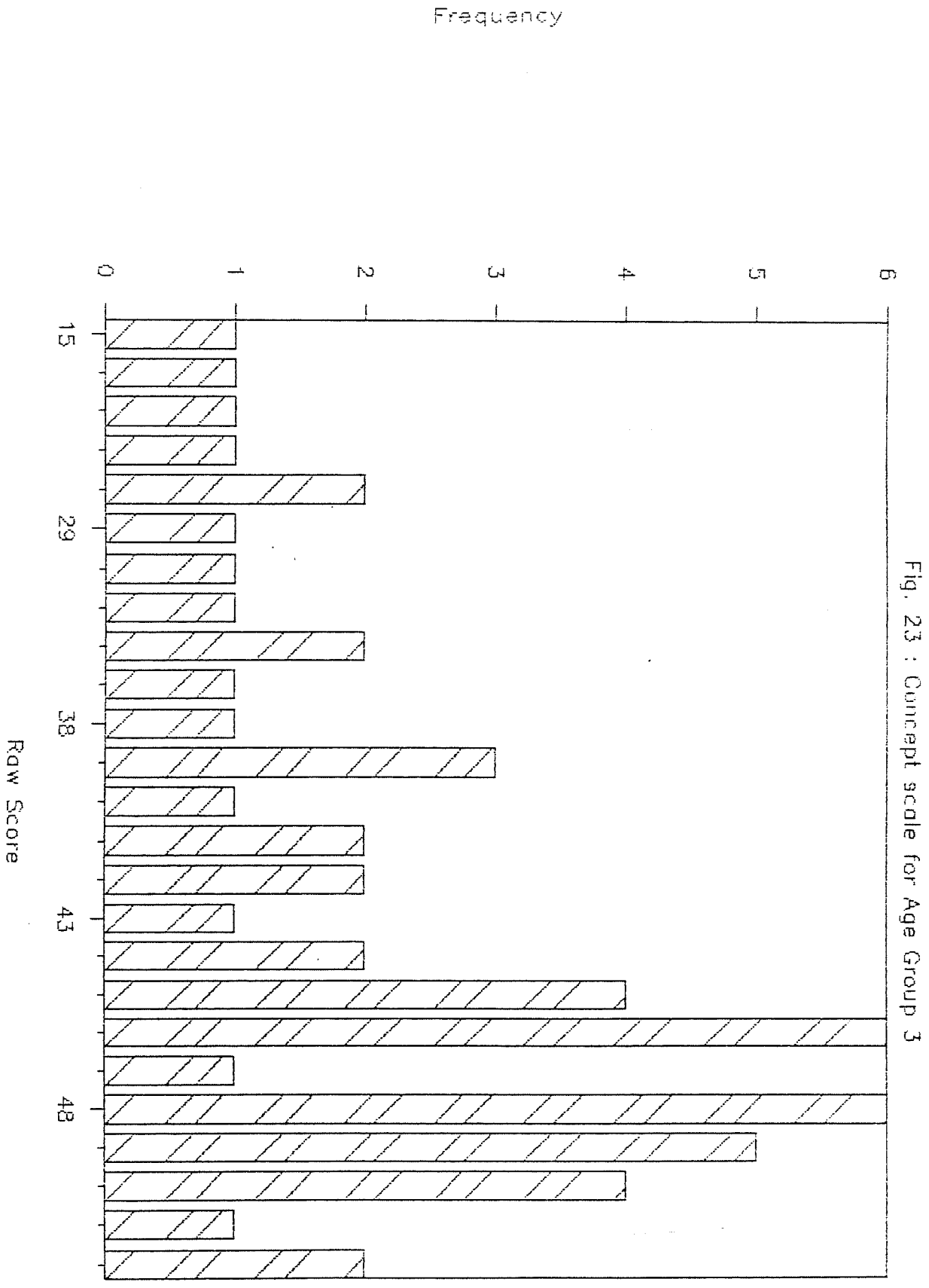


Fig. 23 : Concept scale for Age Group 3

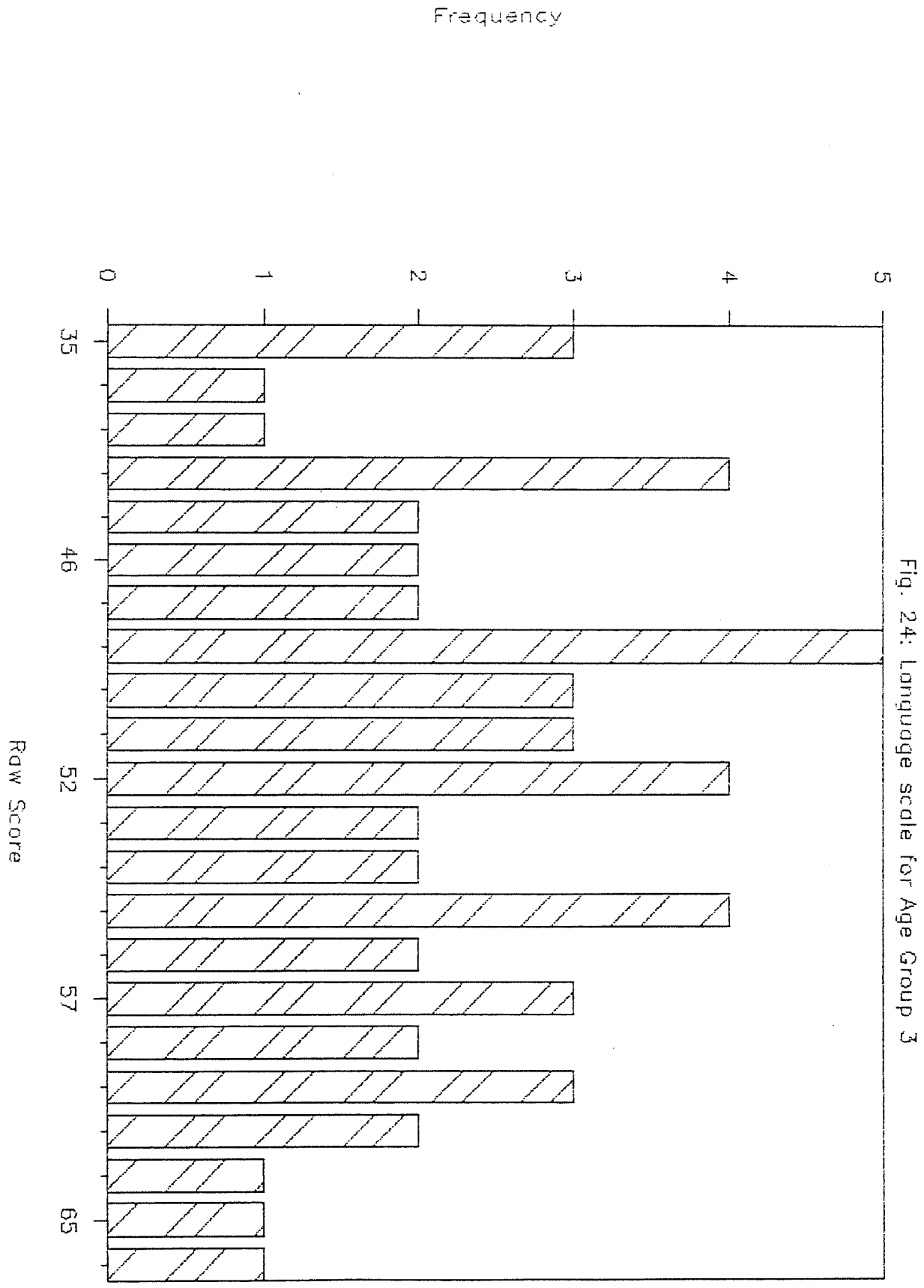
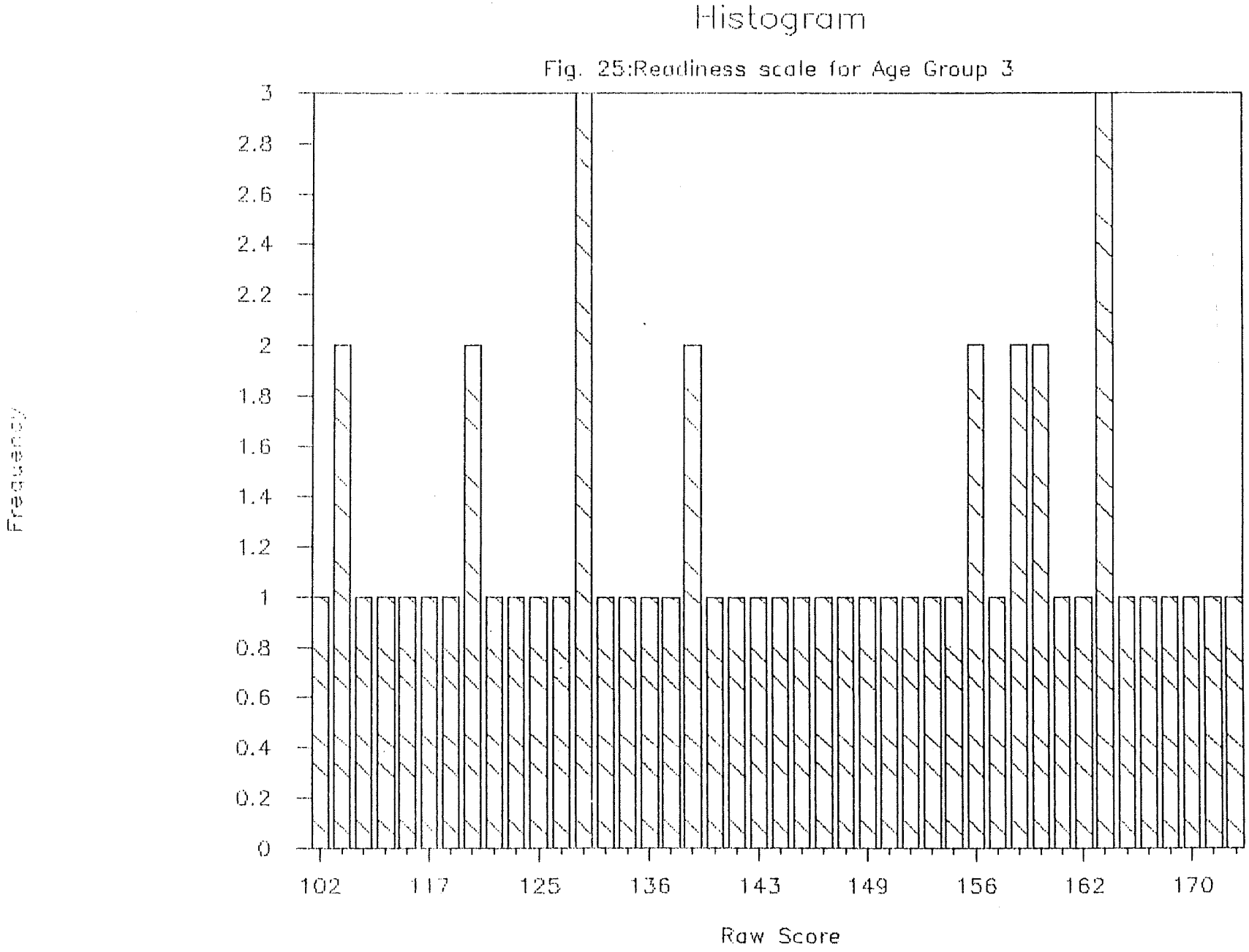


Fig. 24: Language scale for Age Group 3


Histogram
Fig. 25:Readiness scale for Age Group 3
Frequency
3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
102
117
125
136
143
149
156
162
170
Raw Score

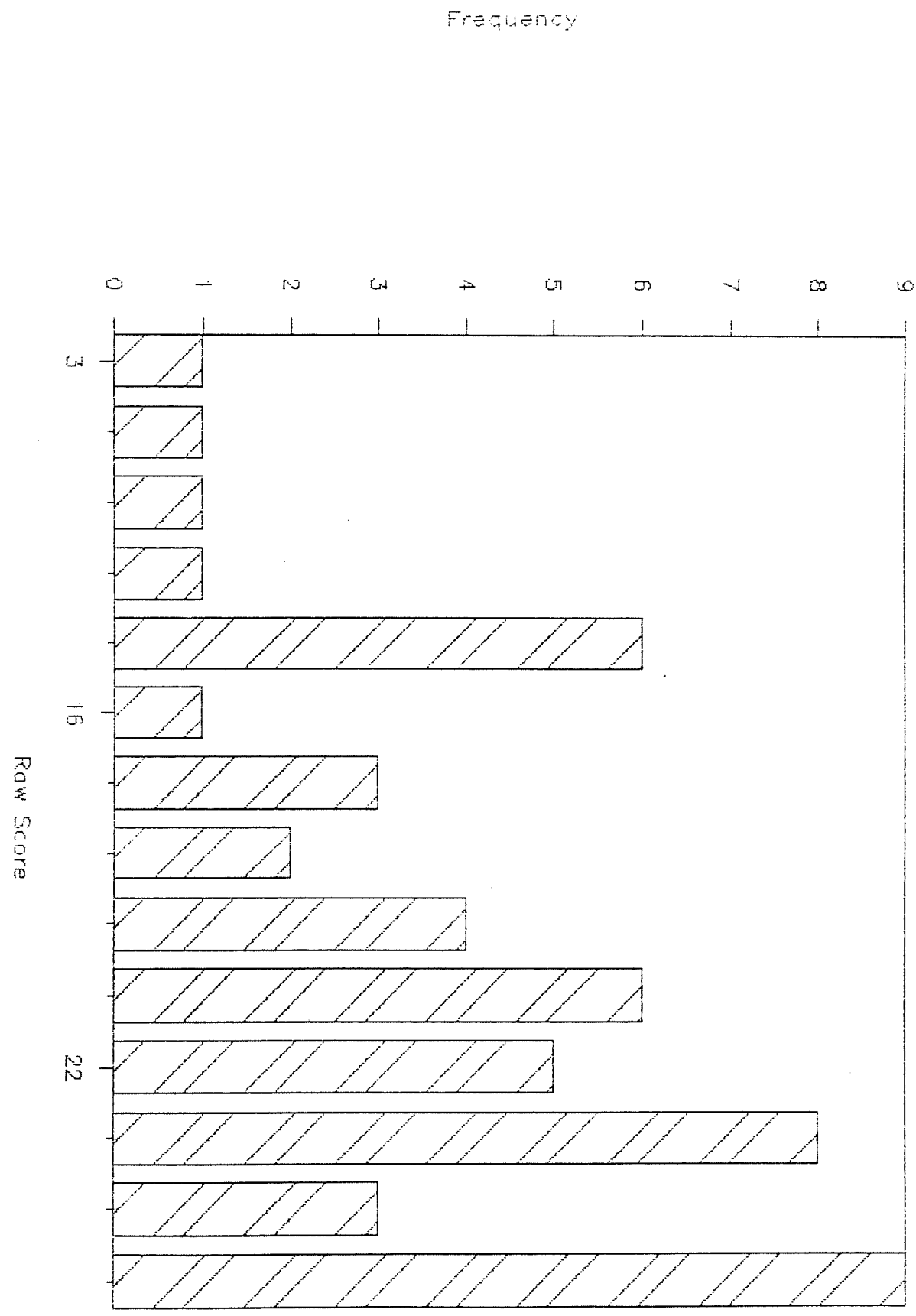


Fig. 26 : Memory scale for Age Group 4

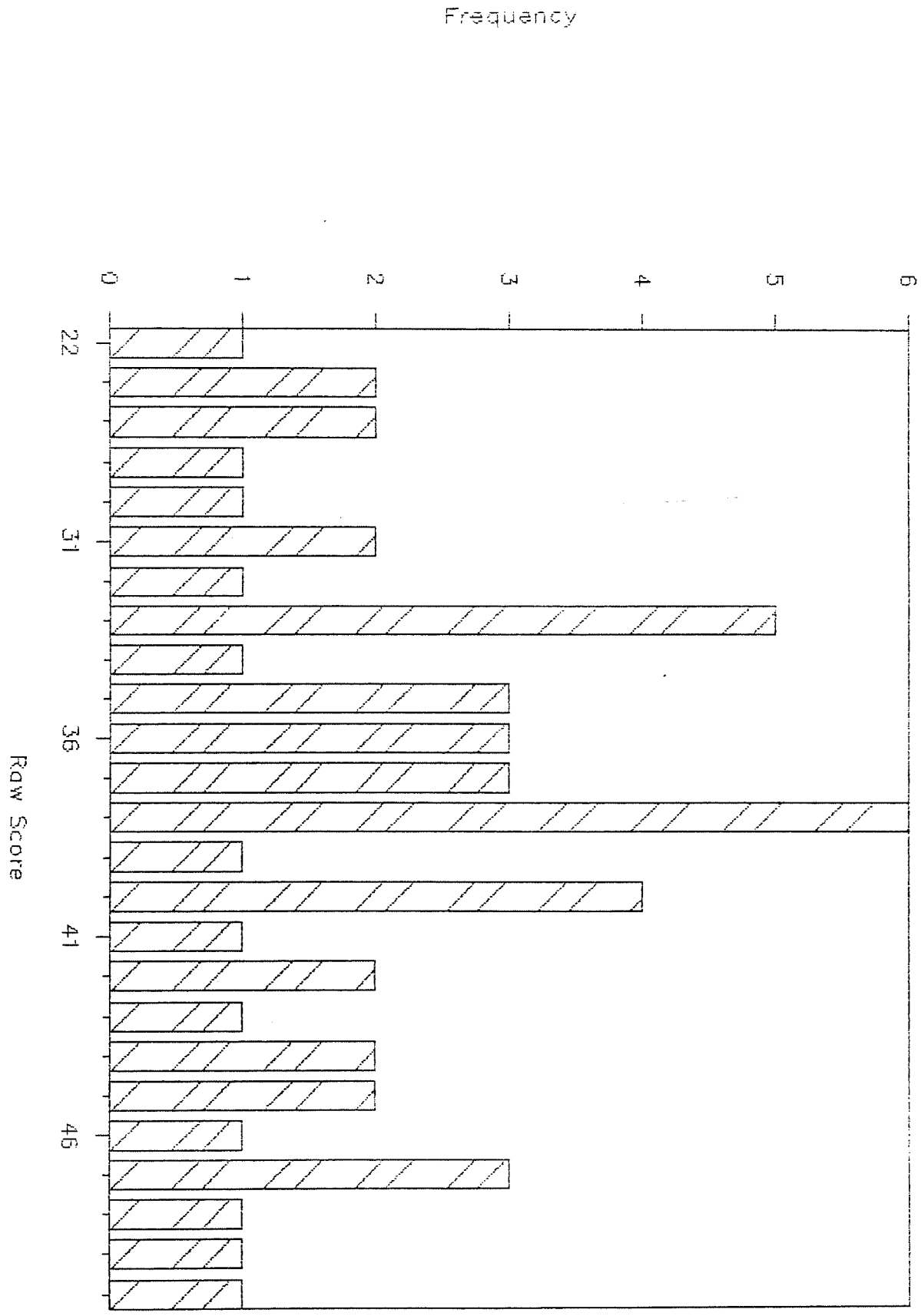


Fig. 27 : Motor scale for Age Group 4

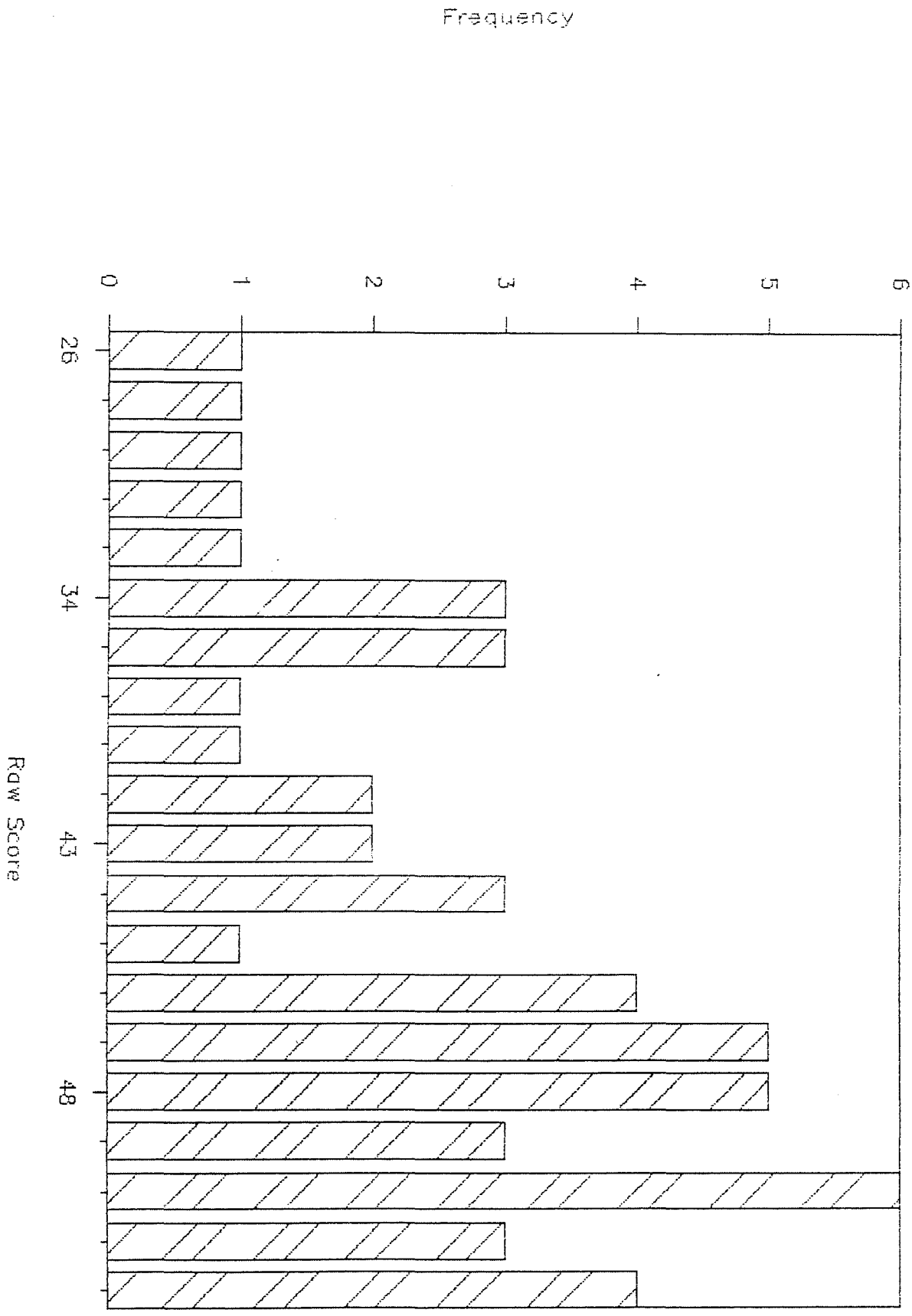


Fig 28 : Concept scale for Age Group 4

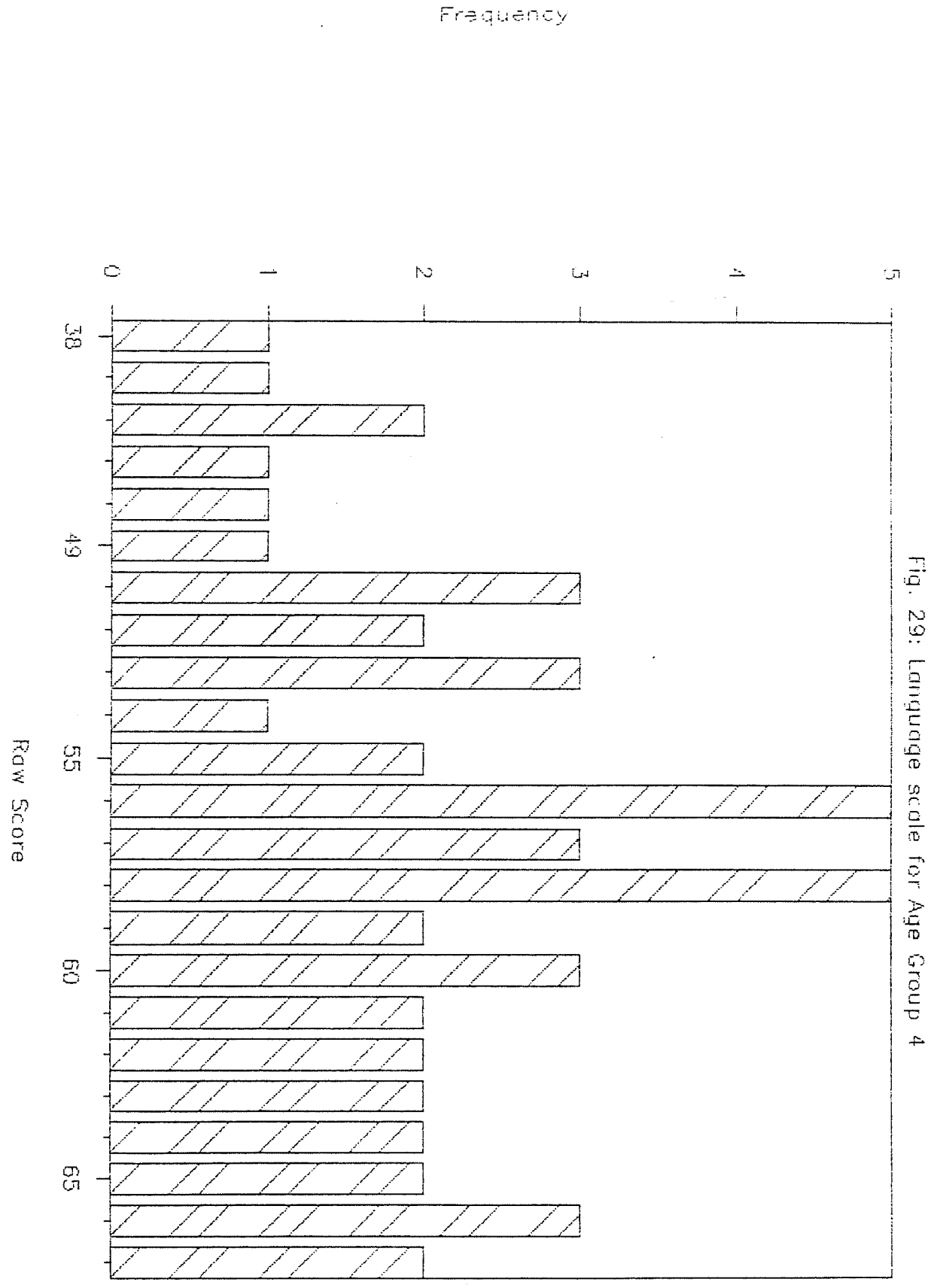
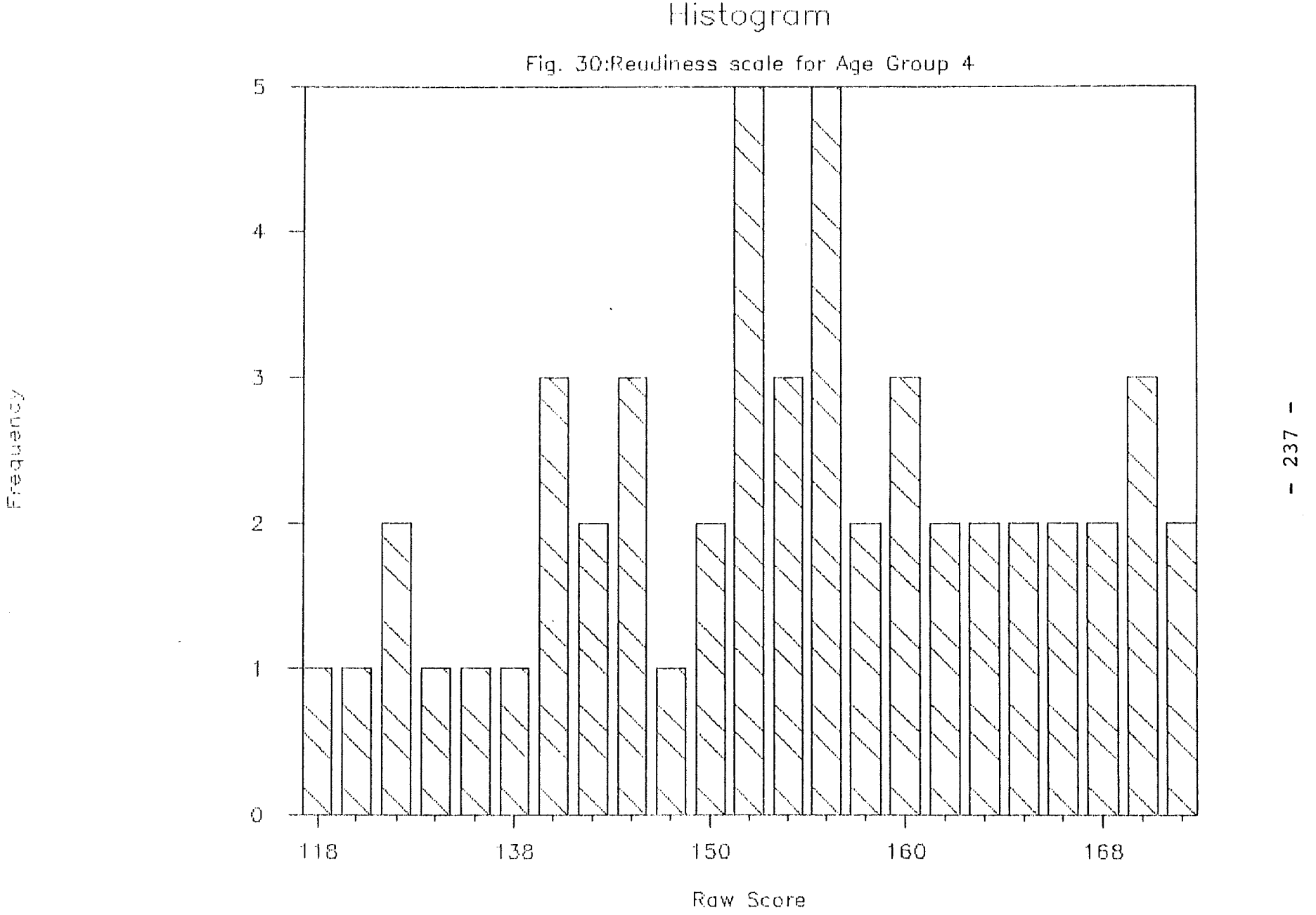


Fig. 29: Language scale for Age Group 4


Histogram
Fig. 30:Readiness scale for Age Group 4
Frequency
5
4
3
2
1
0
118
138
150
160
168
Raw Score

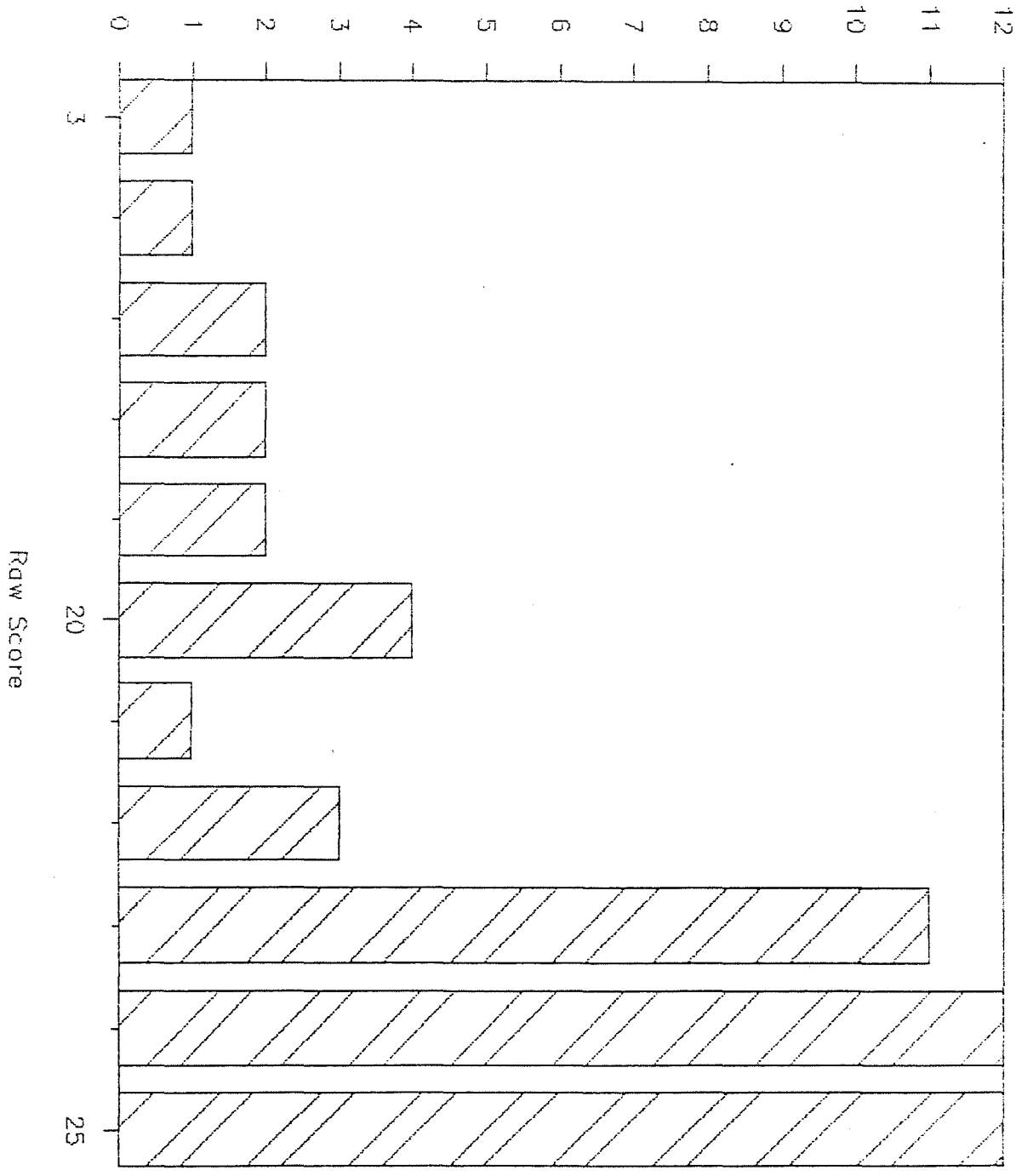
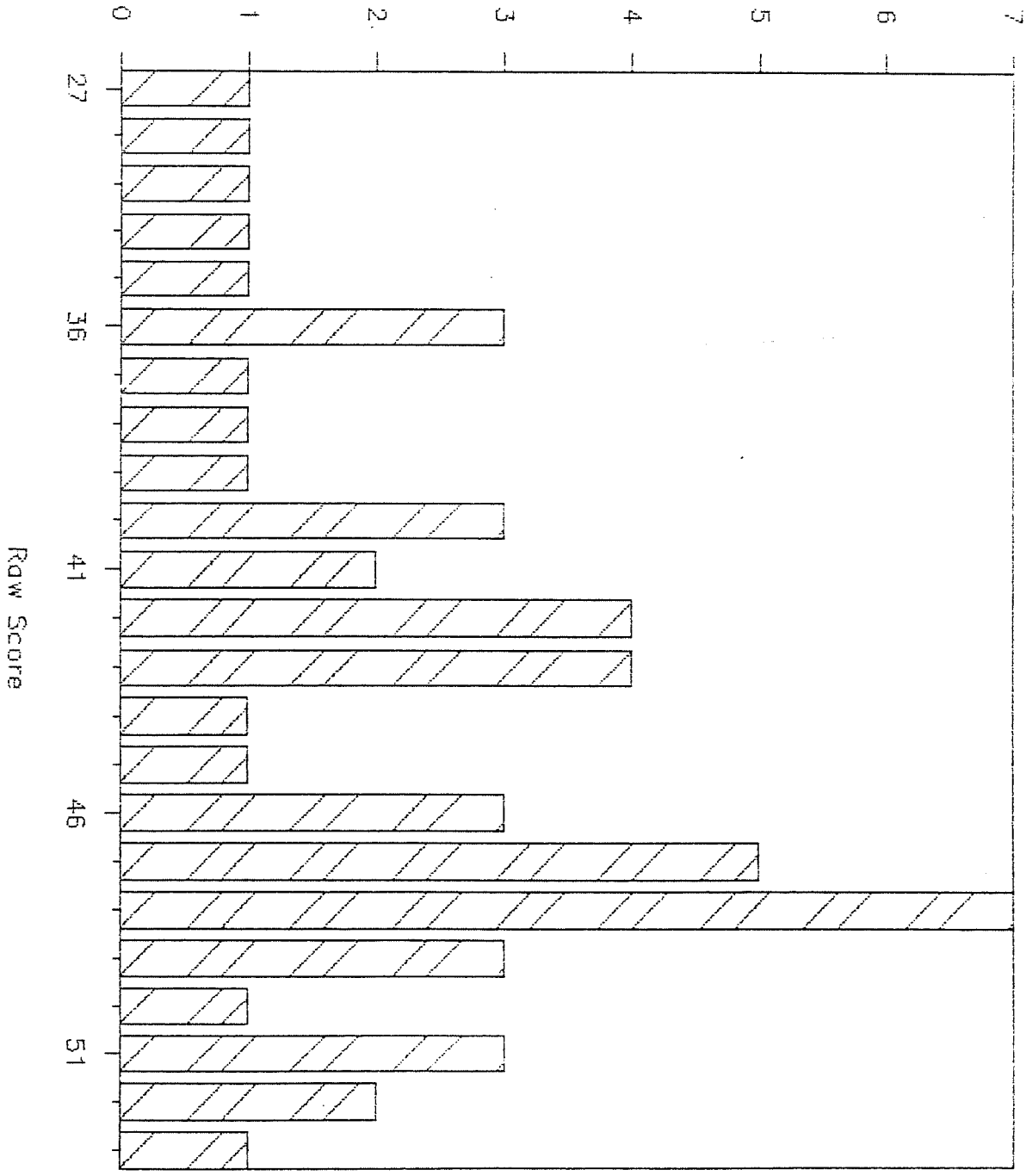


Fig. 31 : Memory scale for Age Group 5



Histogram

Fig. 32 : Motor scale for Age Group 5

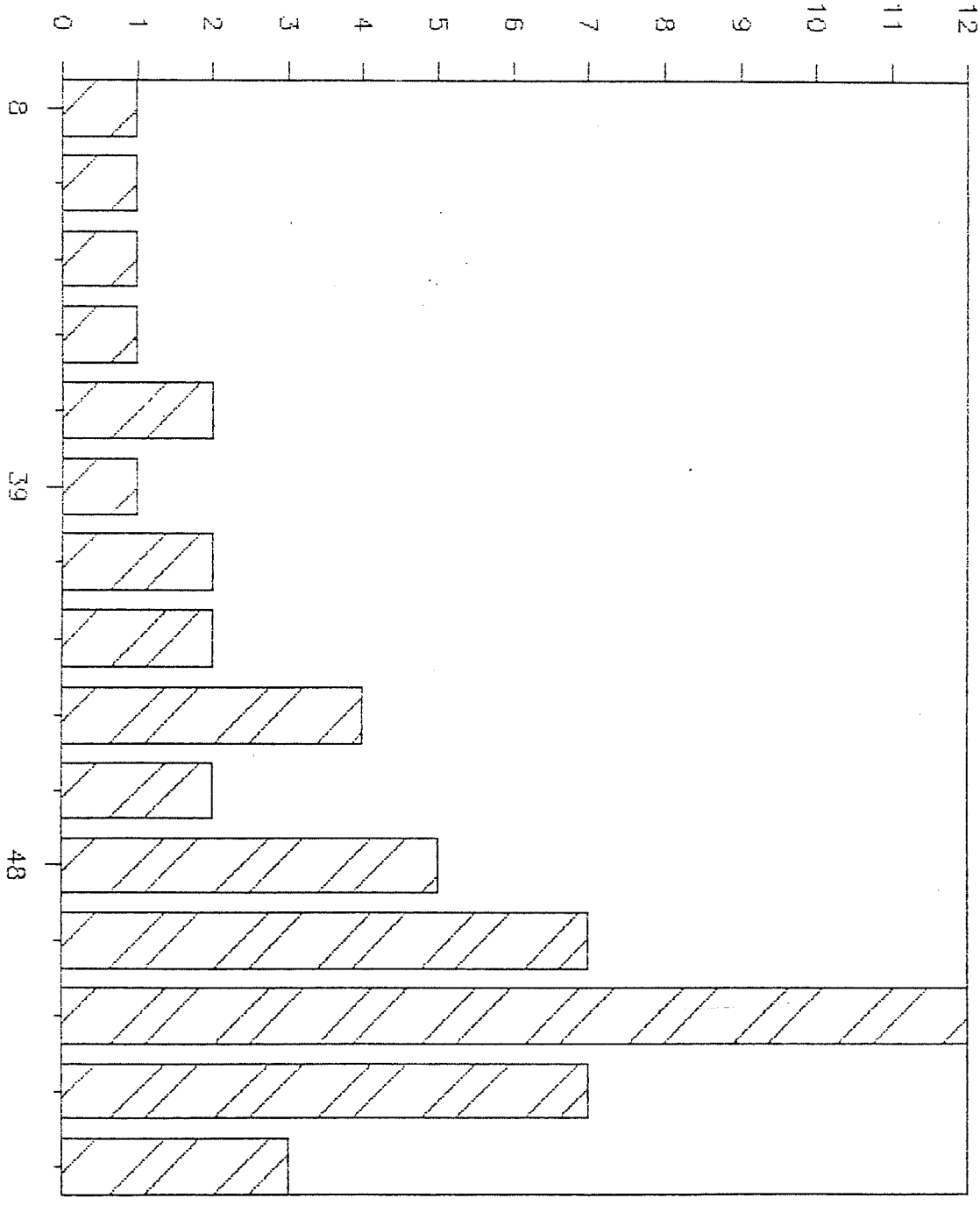


Fig. 33 : Concept scale for Age Group 5

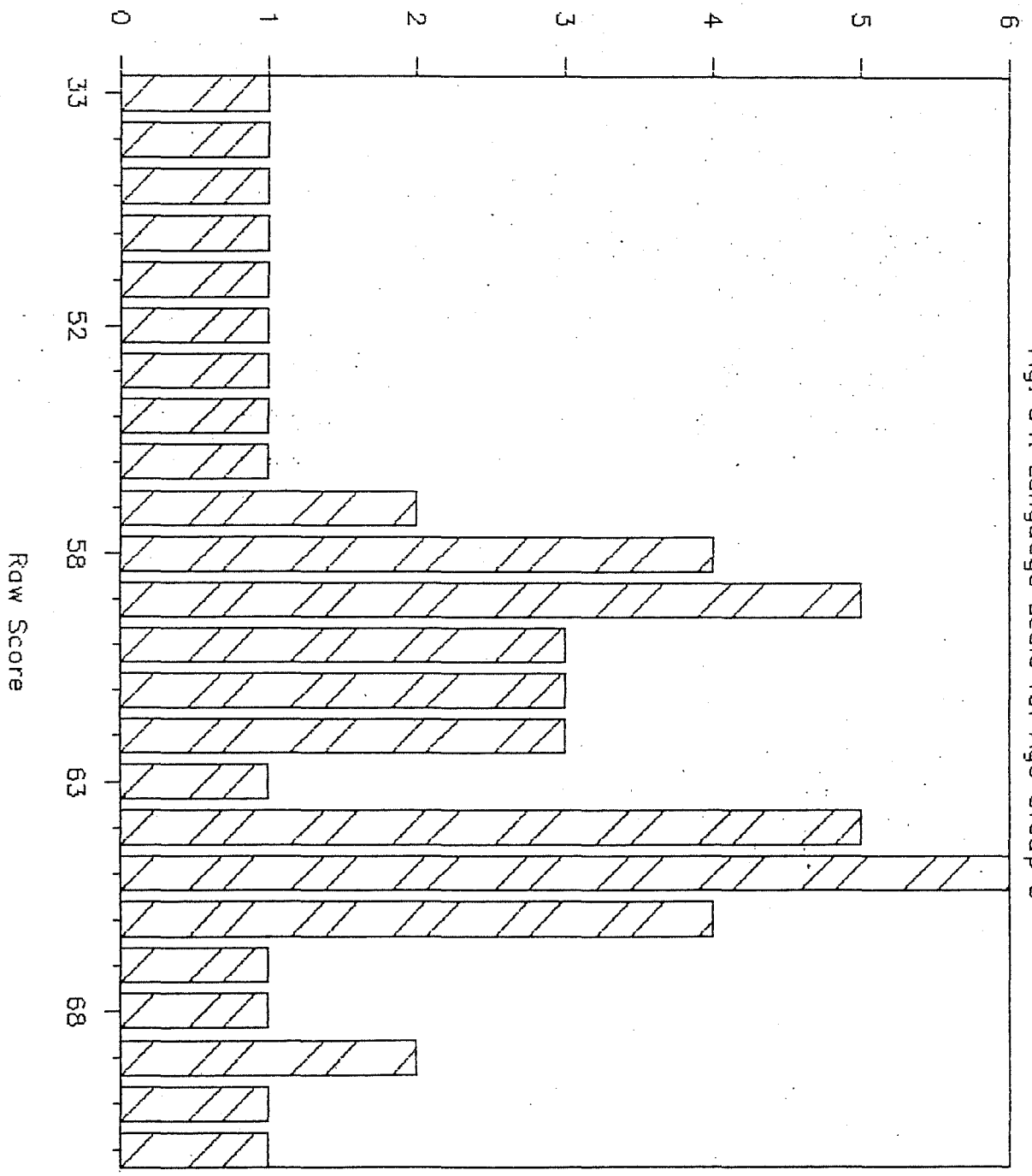
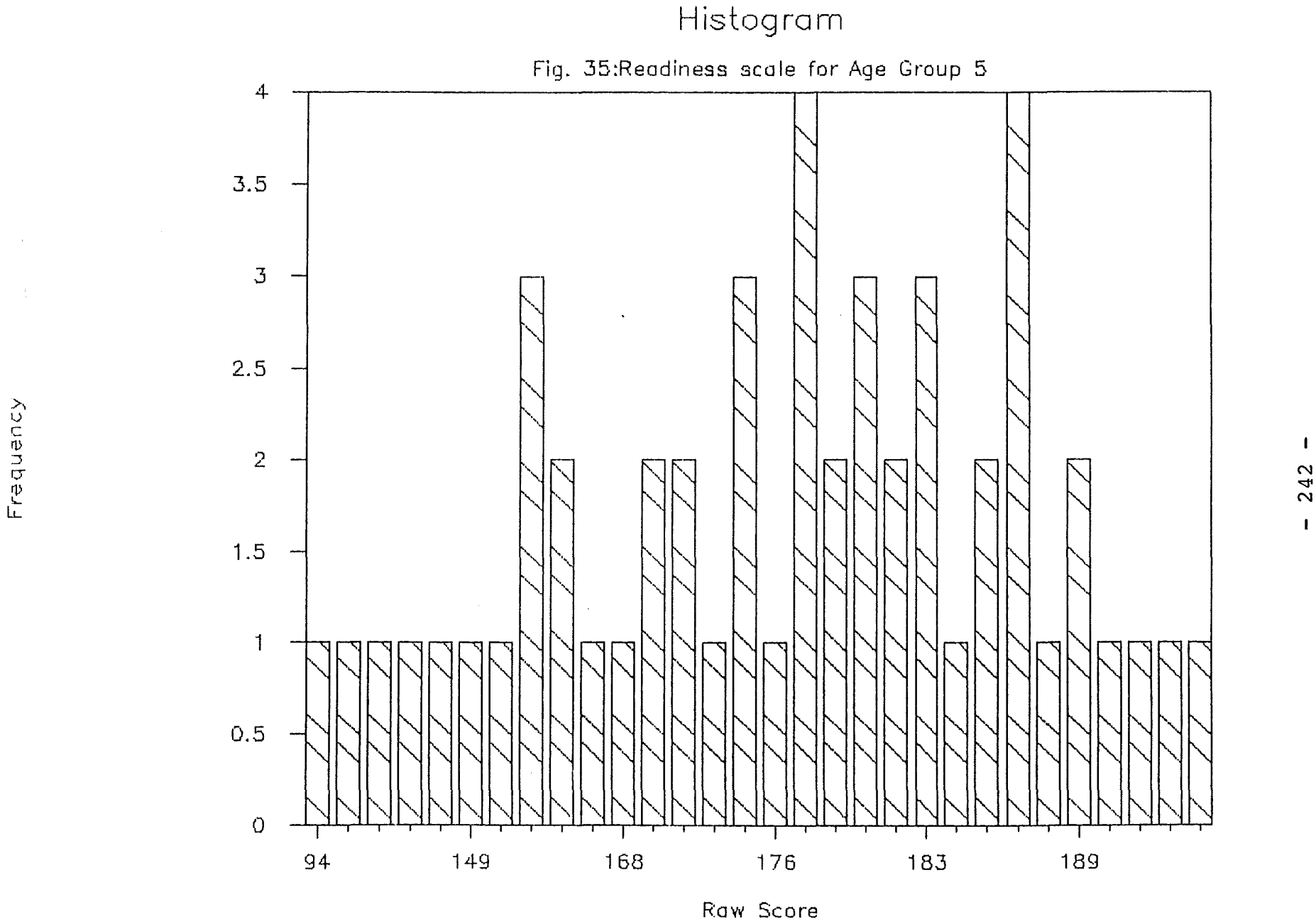


Fig. 34: Language scale for Age Group 5


Histogram
Fig. 35:Readiness scale for Age Group 5
Frequency
4
3.5
3
2.5
2
1.5
1
0.5
0
94
149
168
176
183
189
Raw Score

The LPRT Norms

In order to compare an individual's score with that of the normative group, raw scores were transformed first to standardized z- scores and then to a distribution with a mean of 50 and s.d. of 10 (50+10). Change from raw scores to standard scores of this kind does not alter the form of the distribution. Tables 18-47 report the M, L, C, Me , and R raw scores and their equivalent standardized scores for the entire population and for every age group (1-5). Each scale's (Me, M, L, C, & R) age group mean and standard deviation were used in the computation of the respective z-scores. In addition, the cumulative percentage of every raw and standardized score is presented. In order to facilitate the interpretation of the norms, Tables 12-17 report the L, M, C, Me, and R raw scores and their coresponding percentile values for the entire population and for every age group. This helps to plot a profile for every individual since one can

immediately tell how well a child has done on every scale and on the total Readiness Scale compared to his age group.

Table 12 :

Raw Scores and Percentile Equivalents
For Entire Population

Percentiles	Motor	Memory	Concept	Language	Readiness
5	12.50	3.50	17.25	31.29	80.50
10	16.79	5.97	23.38	34.94	93.50
15	19.16	7.91	27.71	40.42	103.25
20	20.62	9.90	31.17	43.45	110.50
25	23.13	11.78	33.50	45.00	117.43
30	24.45	13.12	35.72	46.44	122.50
35	26.08	14.25	37.97	47.48	127.38
40	27.85	15.81	39.89	48.66	133.25
45	30.46	17.04	42.07	50.71	137.63
50	32.00	18.00	43.60	52.43	142.50
55	33.10	18.96	44.85	54.06	148.83
60	35.07	19.79	45.68	55.40	155.75
65	36.23	20.71	46.60	56.52	159.13
70	37.39	21.61	47.40	57.63	162.83
75	39.33	22.25	48.06	58.73	166.00
80	41.48	22.69	48.84	60.18	172.63
85	43.92	23.23	49.40	61.72	175.94
90	46.88	24.01	49.89	64.03	179.81
95	48.30	24.50	50.74	65.45	185.42
98	50.67	24.80	51.44	67.67	188.67

Table 13 :

Raw Scores and Percentile Equivalents
For Age Group I

Percentiles	Motor	Memory	Concept	Language	Readiness
5	8.67	0.67	10.67	18.33	50.33
10	10.86	2.56	14.71	26.71	64.43
15	11.41	3.52	17.03	30.05	76.62
20	11.88	5.08	18.59	31.28	79.70
25	12.58	5.55	21.76	31.75	81.25
30	14.03	6.03	23.10	32.73	82.29
35	14.81	6.81	26.45	34.91	87.23
40	16.13	7.59	27.45	36.89	88.79
45	16.52	8.38	28.06	38.07	92.43
50	16.91	9.26	29.00	39.50	96.26
55	17.93	10.28	29.94	41.24	97.44
60	18.55	11.10	31.19	43.21	103.29
65	19.14	12.28	33.55	45.55	107.64
70	19.73	13.30	35.30	46.47	110.90
75	20.21	14.24	36.24	47.08	113.48
80	20.60	15.40	39.18	47.86	116.59
85	20.99	15.99	42.95	52.90	122.76
90	22.29	16.58	44.44	53.77	127.57
95	23.55	17.67	45.44	56.33	136.33
98	24.19	21.19	46.38	59.10	138.19

Table 14 :

Raw Scores and Percentile Equivalents
For Age Group II

Percentiles	Motor	Memory	Concept	Language	Readiness
5	16.32	4.16	18.32	25.59	81.86
10	18.59	5.30	24.36	34.18	99.59
15	19.47	6.91	27.91	40.64	103.91
20	20.09	8.60	32.19	42.60	110.19
25	21.50	9.50	33.30	43.75	113.50
30	23.20	10.81	33.76	44.36	118.79
35	23.77	11.42	36.06	44.82	122.02
40	24.23	11.88	37.60	45.46	122.60
45	24.62	12.84	39.68	46.35	124.36
50	25.00	14.32	41.34	47.25	127.00
55	26.26	15.65	42.11	47.83	129.64
60	26.72	16.80	42.86	48.54	132.59
65	27.91	17.38	43.47	49.91	134.91
70	30.06	17.84	44.09	52.21	136.38
75	30.83	18.30	45.25	53.75	139.50
80	31.91	18.76	46.81	55.20	141.81
85	34.06	19.37	47.70	55.77	154.09
90	35.60	20.41	49.14	57.41	156.41
95	36.84	22.68	49.89	59.68	165.68
98	38.45	24.07	50.53	61.07	170.27

Table 15 :

Raw Scores and Percentile Equivalents
For Age Group III

Percentiles	Motor	Memory	Concept	Language	Readiness
5	21.63	4.53	20.53	34.87	104.45
10	24.08	7.16	25.97	41.24	109.89
15	24.74	8.47	31.84	43.21	117.95
20	25.79	11.37	35.58	44.79	120.74
25	26.75	12.56	38.09	46.13	125.79
30	27.95	13.45	38.96	47.18	128.63
35	29.78	14.52	40.78	47.71	133.11
40	30.44	15.61	42.21	48.40	138.11
45	30.97	16.92	43.92	49.28	139.84
50	31.84	18.12	44.63	50.24	143.50
55	32.36	18.79	45.19	51.57	146.32
60	32.80	19.45	45.63	52.89	150.58
65	33.73	20.11	46.44	54.11	154.44
70	34.70	20.77	47.35	54.77	156.11
75	35.87	21.29	47.79	55.87	157.87
80	36.60	21.73	48.28	56.80	159.84
85	37.26	22.15	48.81	58.02	162.35
90	37.92	22.53	49.43	58.89	163.68
95	40.74	22.91	50.37	61.37	168.11
98	46.74	23.95	51.47	64.84	173.79

Table 16 :

Raw Scores and Percentile Equivalents
For Age Group IV

Percentiles	Motor	Memory	Concept	Language	Readiness
5	24.31	9.65	29.10	42.41	118.48
10	26.20	13.19	33.03	47.10	126.21
15	30.33	13.61	33.88	49.22	132.60
20	32.04	14.40	35.46	50.10	141.40
25	32.55	17.15	38.75	51.25	144.15
30	33.30	18.64	40.46	52.30	149.30
35	34.61	19.46	43.29	54.85	153.70
40	35.47	20.07	44.40	55.48	156.93
45	36.32	20.49	45.49	55.99	158.95
50	37.08	20.92	46.10	56.83	160.34
55	37.51	21.41	46.61	57.41	162.10
60	37.93	21.92	47.12	57.92	165.15
65	39.29	22.27	47.63	59.05	165.78
70	39.92	22.59	48.24	59.90	167.69
75	41.63	22.90	49.04	61.13	173.13
80	43.40	23.59	49.47	62.40	174.80
85	44.67	24.15	49.89	63.67	177.18
90	46.61	24.43	50.63	64.95	179.80
95	48.45	24.72	51.36	65.81	184.59
98	50.00	24.89	51.74	66.97	188.00

Table 17 :

Raw Scores and Percentile Equivalents
For Age Group V

Percentiles	Motor	Memory	Concept	Language	Readiness
5	31.10	14.85	13.30	44.75	105.40
10	35.03	17.55	35.75	49.30	148.10
15	35.88	18.82	39.33	53.65	158.10
20	38.20	19.55	40.60	56.60	162.31
25	39.58	20.75	43.18	57.44	166.50
30	40.64	21.76	46.15	58.06	170.56
35	41.46	22.17	47.17	58.57	172.92
40	42.10	22.40	47.68	59.14	174.47
45	42.73	22.63	48.14	59.98	175.95
50	44.50	22.87	48.50	60.83	176.63
55	45.68	23.09	48.86	61.68	178.05
60	46.32	23.30	49.13	63.12	179.53
65	46.83	23.51	49.34	63.63	181.15
70	47.24	23.72	49.56	64.12	182.57
75	47.61	23.94	49.77	64.54	184.13
80	47.97	24.15	49.98	64.97	185.20
85	48.78	24.36	50.34	65.59	185.84
90	50.31	24.57	50.70	66.90	187.90
95	51.23	24.79	51.15	69.44	190.45
98	52.00	24.91	51.66	71.00	193.00

Table 18 :

Readiness Raw & Equivalent Standardized & percentile Scores For Entire Population

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
39.00	19.56	1.00	0.40	0.40
46.00	21.66	1.00	0.40	0.80
50.00	22.86	1.00	0.40	1.20
59.00	25.57	1.00	0.40	1.60
63.00	26.77	1.00	0.40	2.00
65.00	27.37	1.00	0.40	2.40
74.00	30.07	1.00	0.40	2.80
79.00	31.57	3.00	1.20	4.00
80.00	31.87	2.00	0.80	4.80
81.00	32.17	1.00	0.40	5.20
82.00	32.47	3.00	1.20	6.50
85.00	33.37	1.00	0.40	6.90
87.00	33.98	1.00	0.40	7.30
88.00	34.28	3.00	1.20	8.50
90.00	34.88	2.00	0.80	9.30
92.00	35.48	1.00	0.40	9.70
94.00	36.08	1.00	0.40	10.10
95.00	36.38	1.00	0.40	10.50
96.00	36.68	1.00	0.40	10.90
98.00	37.28	4.00	1.60	12.50
99.00	37.58	1.00	0.40	12.90
100.00	37.88	1.00	0.40	13.30
101.00	38.18	1.00	0.40	13.70
102.00	38.48	1.00	0.40	14.10
103.00	38.78	2.00	0.80	14.90
104.00	39.08	1.00	0.40	15.30
105.00	39.38	2.00	0.80	16.10
106.00	39.68	3.00	1.20	17.30
107.00	39.98	1.00	0.40	17.70
108.00	40.28	1.00	0.40	18.10
109.00	40.58	2.00	0.80	19.00
110.00	40.88	2.00	0.80	19.80
111.00	41.18	1.00	0.40	20.20
112.00	41.48	3.00	1.20	21.40
113.00	41.78	1.00	0.40	21.80
114.00	42.09	1.00	0.40	22.20
115.00	42.39	1.00	0.40	22.60
116.00	42.69	1.00	0.40	23.00
117.00	42.99	2.00	0.80	23.80
118.00	43.29	7.00	2.80	26.60

Table 18 : (Cont'd)

Readiness Raw & Equivalent Standardized & percentile Scores For Entire Population

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
119.00	43.59	2.00	0.80	27.40
120.00	43.89	2.00	0.80	28.20
122.00	44.49	2.00	0.80	29.00
123.00	44.79	5.00	2.00	31.00
124.00	45.09	3.00	1.20	32.30
125.00	45.39	3.00	1.20	33.50
126.00	45.69	1.00	0.40	33.90
127.00	45.99	2.00	0.80	34.70
128.00	46.29	2.00	0.80	35.50
129.00	46.59	4.00	1.60	37.10
130.00	46.89	2.00	0.80	37.90
131.00	47.19	1.00	0.40	38.30
132.00	47.49	1.00	0.40	38.70
134.00	48.09	5.00	2.00	41.50
135.00	48.39	2.00	0.80	42.30
136.00	48.69	3.00	1.20	43.50
137.00	48.99	1.00	0.40	44.00
138.00	49.29	4.00	1.60	45.60
139.00	49.59	3.00	1.20	46.80
140.00	49.89	2.00	0.80	47.60
142.00	50.50	3.00	1.20	49.60
143.00	50.80	2.00	0.80	50.40
144.00	51.10	1.00	0.40	50.80
145.00	51.40	4.00	1.60	52.40
146.00	51.70	1.00	0.40	52.80
147.00	52.00	1.00	0.40	53.20
148.00	52.30	2.00	0.80	54.00
149.00	52.60	3.00	1.20	55.20
150.00	52.90	1.00	0.40	55.60
151.00	53.20	1.00	0.40	56.00
152.00	53.50	2.00	0.80	56.90
154.00	54.10	2.00	0.80	57.70
155.00	54.40	2.00	0.80	58.50
156.00	54.70	5.00	2.00	60.50
157.00	55.00	3.00	1.20	61.70
158.00	55.30	5.00	2.00	63.70
159.00	55.60	3.00	1.20	64.90
160.00	55.90	2.00	0.80	65.70
161.00	56.20	1.00	0.40	66.10

Table 18 : (Cont'd)

Readiness Raw & Equivalent Standardized & percentile Scores For Entire Population

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
162.00	56.50	7.00	2.80	69.00
163.00	56.80	3.00	1.20	70.20
164.00	57.10	2.00	0.80	71.00
165.00	57.40	5.00	2.00	73.00
166.00	57.70	5.00	2.00	75.00
167.00	58.00	2.00	0.80	75.80
168.00	58.30	3.00	1.20	77.00
170.00	58.91	3.00	1.20	78.20
172.00	59.61	2.00	0.80	79.00
173.00	59.81	4.00	1.60	80.60
174.00	60.11	4.00	1.60	82.30
175.00	60.41	3.00	1.20	83.50
176.00	60.71	4.00	1.60	85.10
177.00	61.01	5.00	2.00	87.10
178.00	61.31	2.00	0.80	87.90
179.00	61.61	2.00	0.80	88.70
180.00	61.91	4.00	1.60	90.30
181.00	62.21	1.00	0.40	90.70
182.00	62.51	2.00	0.80	91.50
183.00	62.81	3.00	1.20	92.70
184.00	63.11	1.00	0.40	93.10
185.00	63.41	2.00	0.80	94.00
186.00	63.71	6.00	2.40	96.40
187.00	64.01	1.00	0.40	96.80
188.00	64.31	1.00	0.40	97.20
189.00	64.61	3.00	1.20	98.40
190.00	64.91	1.00	0.40	98.80
191.00	65.21	1.00	0.40	99.20
193.00	65.81	1.00	0.40	99.60
195.00	66.41	1.00	0.40	100.00

Table 19 :

Readiness Raw & Equivalent Standardized & percentile Scores For Age Group I

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
39.00	25.26	1.00	2.10	2.10
46.00	28.21	1.00	2.10	4.30
59.00	33.70	1.00	2.10	6.40
63.00	35.38	1.00	2.10	8.50
65.00	36 23	1.00	2.10	10.60
74.00	40.03	1.00	2.10	12.80
79.00	42.14	2.00	4.30	17.00
80.00	42.56	2.00	4.30	21.30
81.00	42.98	1.00	2.10	23.40
82.00	43.40	3.00	6.40	29.80
85.00	44.67	1.00	2.10	31.90
87.00	45.50	1.00	2.10	34.00
88.00	45.93	2.00	4.30	38.30
90.00	46.78	2.00	4.30	42.60
92.00	47.62	1.00	2.10	44.70
95.00	48.89	1.00	2.10	46.80
96.00	49.31	1.00	2.10	48.90
98.00	50.15	4.00	8.50	57.40
103.00	52.26	1.00	2.10	59.60
106.00	53.53	2.00	4.30	63.80
109.00	54.79	1.00	2.10	66.00
110.00	55.22	1.00	2.10	68.10
112.00	56.06	2.00	4.30	72.30
115.00	57.32	1.00	2.10	76.60
116.00	57.75	1.00	2.10	78.70
117.00	58.17	1.00	2.10	80.90
118.00	58.59	1.00	2.10	83.00
123.00	60.70	1.00	2.10	85.10
124.00	61.12	1.00	2.10	87.20
125.00	61.54	1.00	2.10	89.40
134.00	65.34	1.00	2.10	91.50
135.00	65.76	1.00	2.10	93.60
137.00	66.61	1.00	2.10	95.70
138.00	67.03	1.00	2.10	97.90
142.00	68.72	1.00	2.10	100.00

Table 20 :

Readiness Raw & Equivalent Standardized & percentile Scores For Age Group II

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
50.00	17.52	1.00	2.20	2.20
79.00	29.66	1.00	2.20	4.30
88.00	33.42	1.00	2.20	6.50
99.00	38.03	1.00	2.20	8.70
100.00	38.44	1.00	2.20	10.90
103.00	39.70	1.00	2.20	13.00
104.00	40.12	1.00	2.20	15.20
106.00	40.95	1.00	2.20	17.40
110.00	42.63	1.00	2.20	19.60
111.00	43.05	1.00	2.20	21.70
112.00	43.46	1.00	2.20	23.90
118.00	45.98	2.00	4.30	28.30
120.00	46.81	2.00	4.30	32.60
122.00	47.65	1.00	2.20	34.80
123.00	48.07	4.00	8.70	43.50
125.00	48.90	1.00	2.20	45.70
127.00	49.74	2.00	4.30	50.00
128.00	50.16	1.00	2.20	52.20
129.00	50.58	1.00	2.20	54.30
131.00	51.41	1.00	2.20	56.50
133.00	52.25	2.00	4.30	60.90
134.00	52.67	1.00	2.20	63.00
135.00	53.09	1.00	2.20	65.20
136.00	53.51	2.00	4.30	69.60
138.00	54.34	1.00	2.20	71.70
139.00	54.76	1.00	2.20	73.90
140.00	55.18	1.00	2.20	76.10
141.00	55.60	1.00	2.20	78.30
142.00	56.02	1.00	2.20	80.40
147.00	58.11	1.00	2.20	82.60
154.00	61.04	1.00	2.20	84.80
155.00	61.46	1.00	2.20	87.00
156.00	61.87	1.00	2.20	89.10
157.00	62.29	1.00	2.20	91.30
165.00	65.64	1.00	2.20	93.50
166.00	66.06	1.00	2.20	95.70
170.00	67.73	1.00	2.20	97.80
173.00	68.99	1.00	2.20	100.00

Table 21 :

Readiness Raw & Equivalent Standardized & percentile Scores For Age Group III

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
102.00	30.10	1.00	1.90	1.90
105.00	31.60	2.00	3.80	5.70
107.00	32.60	1.00	1.90	7.50
108.00	33.10	1.00	1.90	9.40
114.00	36.10	1.00	1.90	11.30
117.00	37.60	1.00	1.90	13.20
118.00	38.10	1.00	1.90	15.10
119.00	38.60	2.00	3.80	18.90
122.00	40.10	1.00	1.90	20.80
124.00	41.10	1.00	1.90	22.60
125.00	41.60	1.00	1.90	24.50
128.00	43.10	1.00	1.90	26.40
129.00	43.60	3.00	5.70	32.10
132.00	45.10	1.00	1.90	34.00
134.00	46.10	1.00	1.90	35.80
136.00	47.10	1.00	1.90	37.70
138.00	48.10	1.00	1.90	39.60
139.00	48.60	2.00	3.80	43.40
140.00	49.10	1.00	1.90	45.30
142.00	50.10	1.00	1.90	47.20
143.00	50.60	1.00	1.90	49.10
144.00	51.10	1.00	1.90	50.90
145.00	51.60	1.00	1.90	52.80
146.00	52.10	1.00	1.90	54.70
148.00	53.10	1.00	1.90	56.60
149.00	53.60	1.00	1.90	58.50
151.00	54.60	1.00	1.90	60.40
152.00	55.10	1.00	1.90	62.30
154.00	56.10	1.00	1.90	64.20
155.00	56.60	1.00	1.90	66.00
156.00	57.10	2.00	3.80	69.80
157.00	57.60	1.00	1.90	71.70
158.00	58.10	2.00	3.80	75.50
159.00	58.60	2.00	3.80	79.20
161.00	59.60	1.00	1.90	81.10
162.00	60.10	1.00	1.90	83.00
163.00	60.60	3.00	5.70	88.70
164.00	61.10	1.00	1.90	90.60
165.00	61.60	1.00	1.90	92.50
167.00	62.60	1.00	1.90	94.30
170.00	64.10	1.00	1.90	96.20
176.00	67.10	1.00	1.90	100.00

Table 22 :

Readiness Raw & Equivalent Standardized & percentile Scores For Age Group IV

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
118.00	29.00	3.00	5.90	5.90
124.00	32.13	1.00	2.00	7.80
126.00	33.17	1.00	2.00	9.80
130.00	35.26	2.00	3.90	13.70
134.00	37.34	1.00	2.00	15.70
138.00	39.42	1.00	2.00	17.60
141.00	40.98	1.00	2.00	19.60
143.00	42.03	1.00	2.00	21.60
145.00	43.07	3.00	5.90	27.50
149.00	45.15	1.00	2.00	29.40
150.00	45.67	1.00	2.00	31.40
152.00	46.71	1.00	2.00	33.30
156.00	48.80	2.00	3.90	37.30
158.00	49.84	3.00	5.90	43.10
159.00	50.36	1.00	2.00	45.10
160.00	50.88	2.00	3.90	49.00
162.00	51.92	3.00	5.90	54.90
164.00	52.96	1.00	2.00	56.90
165.00	53.48	1.00	2.00	58.80
166.00	54.01	4.00	7.80	66.70
168.00	55.05	2.00	3.90	70.60
170.00	56 09	1.00	2.00	72.50
173.00	57.65	1.00	2.00	74.50
174.00	58.17	2.00	3.90	78.40
176.00	59.21	2.00	3.90	82.40
177.00	59.73	1.00	2.00	84.30
178.00	60.26	2.00	3.90	88.20
180.00	61.30	1.00	2.00	90.20
181.00	61.82	1.00	2.00	92.20
186.00	64.42	2.00	3.90	96.10
188.00	65.46	1.00	2.00	98.00
189.00	65.98	1.00	2.00	100.00

Table 23 :

Readiness Raw & Equivalent Standardized & percentile Scores For Age Group V

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
94.00	13.81	1.00	2.00	2.00
101.00	17.06	1.00	2.00	3.90
109.00	20.78	1.00	2.00	5.90
134.00	32.41	1.00	2.00	7.80
148.00	38.92	1.00	2.00	9.80
149.00	39.39	1.00	2.00	11.80
157.00	43.11	1.00	2.00	13.70
162.00	45.43	3.00	5.90	19.60
165.00	46.83	2.00	3.90	23.50
167.00	47.76	1.00	2.00	25.50
168.00	48.22	1.00	2.00	27.50
172.00	50.08	2.00	3.90	31.40
173.00	50.55	2.00	3.90	35.30
174.00	51.01	1.00	2.00	37.30
175.00	51.48	3.00	5.90	43.10
176.00	51.94	1.00	2.00	45.10
177.00	52.41	4.00	7.80	52.90
179.00	53.34	2.00	3.90	56.90
180.00	53.81	3.00	5.90	62.70
182.00	54.74	2.00	3.90	66.70
183.00	55.2	3.00	5.90	72.50
184.00	55.67	1.00	2.00	74.50
185.00	56.13	2.00	3.90	78.40
186.00	56.60	4.00	7.80	86.30
187.00	57.06	1.00	2.00	88.20
189.00	58.0	2.00	3.90	92.20
190.00	58.46	1.00	2.00	94.10
191.00	58.92	1.00	2.00	96.10
193.00	59.85	1.00	2.00	98.00
195.00	60.78	1.00	2.00	100.00

Table 24 :

Concept Raw & Equivalent Standardized & percentile Scores For Entire Population

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
0.00	12.41	1.00	0.40	0.40
8.00	19.89	1.00	0.40	0.80
10.00	21.76	2.00	0.80	1.60
13.00	24.57	1.00	0.40	2.00
14.00	25.50	2.00	0.80	2.80
15.00	26.43	2.00	0.80	3.60
16.00	27.37	2.00	0.80	4.40
17.00	28.30	1.00	0.40	4.80
18.00	29.24	2.00	0.80	5.60
19.00	30.17	4.00	1.60	7.30
21.00	32.04	1.00	0.40	7.70
22.00	32.98	3.00	1.20	8.90
23.00	33.91	2.00	0.80	9.70
24.00	34.85	2.00	0.80	10.50
26.00	36.72	3.00	1.20	11.70
27.00	37.65	4.00	1.60	13.30
28.00	38.58	6.00	2.40	15.70
29.00	39.52	2.00	0.80	16.50
30.00	40.45	6.00	2.40	19.00
31.00	41.39	2.00	0.80	19.80
32.00	42.32	3.00	1.20	21.00
33.00	43.26	5.00	2.00	23.00
34.00	44.19	10.00	4.00	27.00
35.00	45.13	1.00	0.40	27.40
36.00	46.06	9.00	3.60	31.00
37.00	47.00	1.00	0.40	31.50
38.00	47.93	9.00	3.60	35.10
39.00	48.87	6.00	2.40	37.50
40.00	49.80	7.00	2.80	40.30
41.00	50.73	5.00	2.00	42.30
42.00	51.67	6.00	2.40	44.80
43.00	52.60	7.00	2.80	47.60
44.00	53.54	10.00	4.00	51.60
45.00	54.47	10.00	4.00	55.60
46.00	55.41	16.00	6.50	62.10
47.00	56.34	12.00	4.80	66.90
48.00	57.28	19.00	7.70	74.60
49.00	58.21	16.00	6.50	81.00
50.00	59.15	25.00	10.10	91.10
51.00	60.08	13.00	5.20	96.40
52.00	61.02	9.00	3.60	100.00

Table 25 :

Concept Raw & Equivalent Standardized & percentile Scores For Age Group I

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
0.00	22.88	1.00	2.10	2.10
10.00	32.01	1.00	2.10	4.30
14.00	35.66	2.00	4.30	8.50
15.00	36.57	1.00	2.10	10.60
16.00	37.48	1.00	2.10	12.80
17.00	38.39	1.00	2.10	14.90
19.00	40.22	3.00	6.40	21.30
21.00	42.04	1.00	2.10	23.40
22.00	42.96	1.00	2.10	25.50
23.00	43.87	2.00	4.30	29.80
24.00	44.78	1.00	2.10	31.90
26.00	46.60	1.00	2.10	34.00
27.00	47.52	1.00	2.10	36.20
28.00	48.43	4.00	8.50	44.70
30.00	50.26	5.00	10.60	55.30
31.00	51.17	2.00	4.30	59.60
33.00	52.99	2.00	4.30	63.80
34.00	53.91	1.00	2.10	66.00
35.00	54.82	1.00	2.10	68.10
36.00	55.73	3.00	6.40	74.50
38.00	57.56	2.00	4.30	78.70
40.00	59.38	1.00	2.10	80.90
42.00	61.20	1.00	2.10	83.00
43.00	62.12	1.00	2.10	85.10
44.00	63.03	1.00	2.10	87.20
45.00	63.94	3.00	6.40	93.60
47.00	65.77	3.00	6.40	100.00

Table 26 :

Concept Raw & Equivalent Standardized & percentile Scores For Age Group II

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
13.00	22.35	1.00	2.20	2.20
18.00	27.68	1.00	2.20	4.30
19.00	28.74	1.00	2.20	6.50
22.00	31.94	1.00	2.20	8.70
26.00	36.20	1.00	2.20	10.90
27.00	37.26	1.00	2.20	13.00
28.00	38.33	1.00	2.20	15.20
29.00	39.39	1.00	2.20	17.40
32.00	42.59	1.00	2.20	19.60
33.00	43.65	1.00	2.20	21.70
34.00	44.72	5.00	10.90	32.60
36.00	46.85	1.00	2.20	34.80
38.00	48.98	3.00	6.50	41.30
39.00	50.04	1.00	2.20	43.50
40.00	51.11	1.00	2.20	45.70
41.00	52.17	1.00	2.20	47.80
42.00	53.24	3.00	6.50	54.30
43.00	54.30	3.00	6.50	60.90
44.00	55.37	4.00	8.70	69.60
45.00	56.43	2.00	4.30	73.90
46.00	57.50	2.00	4.30	78.30
47.00	58.56	1.00	2.20	80.40
48.00	59.63	3.00	6.50	87.00
49.00	60.69	1.00	2.20	89.10
50.00	61.76	3.00	6.50	95.70
51.00	62.82	2.00	4.30	100.00

Table 27 :

Concept Raw & Equivalent Standardized & percentile Scores For Age Group III

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
15.00	19.79	1.00	1.90	1.90
18.00	23.16	1.00	1.90	3.80
22.00	27.65	1.00	1.90	5.70
24.00	29.90	1.00	1.90	7.50
27.00	33.27	2.00	3.80	11.30
29.00	35.52	1.00	1.90	13.20
32.00	38.89	1.00	1.90	15.10
34.00	41.14	1.00	1.90	17.00
36.00	43.38	2.00	3.80	20.80
37.00	44.51	1.00	1.90	22.60
38.00	45.63	1.00	1.90	24.50
39.00	46.75	3.00	5.70	30.20
40.00	47.88	1.00	1.90	32.10
41.00	49.00	2.00	3.80	35.80
42.00	50.12	2.00	3.80	39.60
43.00	51.25	1.00	1.90	41.50
44.00	52.37	2.00	3.80	45.30
45.00	53.49	4.00	7.50	52.80
46.00	54.62	6.00	11.30	64.20
47.00	55.74	1.00	1.90	66.00
48.00	56.87	6.00	11.30	77.40
49.00	57.99	5.00	9.40	86.80
50.00	59.11	4.00	7.50	94.30
51.00	60.24	1.00	1.90	96.20
52.00	61.36	2.00	3.80	100.00

Table 28 :

Concept Raw & Equivalent Standardized & percentile Scores For Age Group IV

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
26.00	24.30	1.00	2.00	2.00
28.00	27.15	1.00	2.00	3.90
30.00	30.00	1.00	2.00	5.90
32.00	32.85	1.00	2.00	7.80
33.00	34.27	1.00	2.00	9.80
34.00	35.70	3.00	5.90	15.70
36.00	38.55	3.00	5.90	21.60
38.00	41.40	1.00	2.00	23.50
39.00	42.82	1.00	2.00	25.50
40.00	44.25	2.00	3.90	29.40
43.00	48.52	2.00	3.90	33.30
44.00	49.94	3.00	5.90	39.20
45.00	51.37	1.00	2.00	41.20
46.00	52.79	4.00	7.80	49.00
47.00	54.22	5.00	9.80	58.80
48.00	55.64	5.00	9.80	68.60
49.00	57.07	3.00	5.90	74.50
50.00	58.49	6.00	11.80	86.30
51.00	59.92	3.00	5.90	92.20
52.00	61.34	4.00	7.80	100.00

Table 29 :

Concept Raw & Equivalent Standardized & percentile Scores For Age Group V

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
8.00	11.19	1.00	2.00	2.00
10.00	13.26	1.00	2.00	3.90
16.00	19.48	1.00	2.00	5.90
33.00	37.10	1.00	2.00	7.80
38.00	42.28	2.00	3.90	11.80
39.00	43.32	1.00	2.00	13.70
40.00	44.35	2.00	3.90	17.60
41.00	45.39	2.00	3.90	21.60
46.00	50.57	4.00	7.80	29.40
47.00	51.61	2.00	3.90	33.30
48.00	52.64	5.00	9.80	43.10
49.00	53.68	7.00	13.70	56.90
50.00	54.72	12.00	23.50	80.40
51.00	55.75	7.00	13.70	94.10
52.00	56.79	3.00	5.90	100.00

Table 30 :

Language Raw & Equivalent Standardized & percentile Scores For Entire Population

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
16.00	17.09	1.00	0.40	0.40
17.00	18.02	1.00	0.40	0.80
19.00	19.87	1.00	0.40	1.20
21.00	21.73	1.00	0.40	1.60
24.00	24.51	1.00	0.40	2.00
26.00	26.37	1.00	0.40	2.40
27.00	27.30	1.00	0.40	2.80
29.00	29.15	2.00	0.80	3.60
31.00	31.01	2.00	0.80	4.40
32.00	31.94	5.00	2.00	6.50
33.00	32.87	2.00	0.80	7.30
34.00	33.79	3.00	1.20	8.50
35.00	34.72	4.00	1.60	10.10
36.00	35.65	1.00	0.40	10.50
37.00	36.58	1.00	0.40	10.90
38.00	37.51	5.00	2.00	12.90
39.00	38.43	2.00	0.80	13.70
40.00	39.36	2.00	0.80	14.50
41.00	40.29	3.00	1.20	15.70
42.00	41.22	5.00	2.00	17.70
43.00	42.15	2.00	0.80	18.50
44.00	43.07	8.00	3.20	21.80
45.00	44.00	8.00	3.20	25.00
46.00	44.93	8.00	3.20	28.20
47.00	45.86	10.00	4.00	32.30
48.00	46.79	14.00	5.60	37.90
49.00	47.71	8.00	3.20	41.10
50.00	48.64	6.00	2.40	43.50
51.00	49.57	5.00	2.00	45.60
52.00	50.50	8.00	3.20	48.80
53.00	51.43	7.00	2.80	51.60
54.00	52.35	8.00	3.20	54.80
55.00	53.28	8.00	3.20	58.10
56.00	54.21	12.00	4.80	62.90

Table 30 : (Cont'd)

Language Raw & Equivalent Standardized & percentile Scores For Entire Population

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
57.00	55.14	10.00	4.00	66.90
58.00	56.07	12.00	4.80	71.80
59.00	56.99	11.00	4.40	76.20
60.00	57.92	8.00	3.20	79.40
61.00	58.85	8.00	3.20	82.70
62.00	59.78	8.00	3.20	85.90
63.00	60.71	3.00	1.20	87.10
64.00	61.63	7.00	2.80	89.90
65.00	62.56	9.00	3.60	93.50
66.00	63.49	8.00	3.20	96.80
67.00	64.42	1.00	0.40	97.20
68.00	65.35	3.00	1.20	98.40
70.00	67.20	2.00	0.80	99.20
71.00	68.13	1.00	0.40	99.60
74.00	70.91	1.00	0.40	100.00

Table 31 :

Language Raw & Equivalent Standardized & percentile Scores For Age Group I

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
16.00	27.13	1.00	2.10	2.10
17.00	28.06	1.00	2.10	4.30
21.00	31.81	1.00	2.10	6.40
26.00	36.48	1.00	2.10	8.50
27.00	37.42	1.00	2.10	10.60
29.00	39.29	1.00	2.10	12.80
31.00	41.16	2.00	4.30	17.00
32.00	41.10	5.00	10.60	27.70
34.00	44.25	3.00	6.40	34.00
36.00	45.84	1.00	2.10	36.20
38.00	47.71	4.00	8.50	44.70
39.00	48.64	2.00	4.30	48.90
40.00	49.58	1.00	2.10	51.10
42.00	51.45	3.00	6.40	57.40
44.00	53.32	2.00	4.30	61.70
45.00	54.26	1.00	2.10	63.80
46.00	55.19	1.00	2.10	66.00
47.00	56.13	4.00	8.50	74.50
48.00	57.06	3.00	6.40	80.90
51.00	59.87	1.00	2.10	83.00
53.00	61.74	1.00	2.10	85.10
54.00	62.68	3.00	6.40	91.50
55.00	63.61	1.00	2.10	93.60
57.00	65.48	1.00	2.10	95.70
59.00	67.35	1.00	2.10	97.90
61.00	69.22	1.00	2.10	100.00

Table 32 :

Language Raw & Equivalent Standardized & percentile Scores For Age Group II

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
19.00	19.08	1.00	2.20	2.20
24.00	24.51	1.00	2.20	4.30
29.00	29.93	1.00	2.20	6.50
33.00	34.28	1.00	2.20	8.70
35.00	36.45	1.00	2.20	10.90
37.00	38.62	1.00	2.20	13.00
41.00	42.96	1.00	2.20	15.20
42.00	44.05	1.00	2.20	17.40
43.00	45.14	2.00	4.30	21.70
44.00	46.22	2.00	4.30	26.10
45.00	47.31	5.00	10.90	37.00
46.00	48.39	3.00	6.50	43.50
47.00	49.49	2.00	4.30	47.80
48.00	50.57	4.00	8.70	56.50
49.00	51.65	3.00	6.50	63.00
51.00	53.82	2.00	4.30	67.40
53.00	55.99	2.00	4.30	71.70
54.00	57.08	2.00	4.30	76.10
55.00	58.17	1.00	2.20	78.30
56.00	59.25	4.00	8.70	87.00
57.00	60.34	1.00	2.20	89.10
58.00	61.42	1.00	2.20	91.30
60.00	63.59	2.00	4.30	95.70
62.00	65.77	2.00	4.30	100.00

Table 33 :

Language Raw & Equivalent Standardized & percentile Scores For Age Group III

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
35.00	27.59	3.00	5.70	5.70
40.00	34.55	1.00	1.90	7.50
41.00	35.95	1.00	1.90	9.40
44.00	40.13	4.00	7.50	17.00
45.00	41.52	2.00	3.80	20.80
46.00	42.91	2.00	3.80	24.50
47.00	44.30	2.00	3.80	28.30
48.00	45.70	5.00	9.40	37.70
49.00	52.91	3.00	5.70	43.40
50.00	48.48	3.00	5.70	49.10
52.00	51.27	4.00	7.50	56.60
53.00	52.66	2.00	3.80	60.40
54.00	54.05	2.00	3.80	64.20
55.00	55.45	4.00	7.50	71.70
56.00	56.84	2.00	3.80	75.50
57.00	58.23	3.00	5.70	81.10
58.00	59.62	2.00	3.80	84.90
59.00	61.02	3.00	5.70	90.60
61.00	63.80	2.00	3.80	94.30
62.00	65.20	1.00	1.90	96.20
65.00	69.37	1.00	1.90	98.10
66.00	70.77	1.00	1.90	100.00

Table 34 :

Language Raw & Equivalent Standardized & percentile Scores For Age Group IV

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
38.00	22.65	1.00	2.00	2.00
41.00	27.05	1.00	2.00	3.90
46.00	34.38	2.00	3.90	7.80
47.00	35.85	1.00	2.00	9.80
48.00	37.32	1.00	2.00	11.80
49.00	38.78	1.00	2.00	13.70
50.00	40.25	3.00	5.90	19.60
51.00	41.72	2.00	3.90	23.50
52.00	43.18	3.00	5.90	29.40
53.00	44.65	1.00	2.00	31.40
55.00	47.58	2.00	3.90	35.30
56.00	49.05	5.00	9.80	45.10
57.00	50.51	3.00	5.90	51.00
58.00	51.98	5.00	9.80	60.80
59.00	53.45	2.00	3.90	64.70
60.00	54.91	3.00	5.90	70.60
61.00	56.38	2.00	3.90	74.50
62.00	57.85	2.00	3.90	78.40
63.00	59.31	2.00	3.90	82.40
64.00	60.78	2.00	3.90	86.30
65.00	62.24	2.00	3.90	90.20
66.00	63.71	3.00	5.90	96.10
68.00	66.64	2.00	3.90	100.00

Table 35 :

Language Raw & Equivalent Standardized & percentile Scores For Age Group V

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
33.00	12.76	1.00	2.00	2.00
42.00	24.99	1.00	2.00	3.90
47.00	31.78	1.00	2.00	5.90
48.00	33.14	1.00	2.00	7.80
49.00	34.50	1.00	2.00	9.80
52.00	38.57	1.00	2.00	11.80
53.00	39.93	1.00	2.00	13.70
54.00	41.29	1.00	2.00	15.70
56.00	44.01	1.00	2.00	17.60
57.00	45.37	2.00	3.90	21.60
58.00	46.74	4.00	7.80	29.40
59.00	48.08	5.00	9.80	39.20
60.00	49.44	3.00	5.90	45.10
61.00	50.80	3.00	5.90	51.00
62.00	52.16	3.00	5.90	56.90
63.00	53.52	1.00	2.00	58.80
64.00	54.88	5.00	9.80	68.60
65.00	56.24	6.00	11.80	80.40
66.00	57.60	4.00	7.80	88.20
67.00	58.95	1.00	2.00	90.20
68.00	60.31	1.00	2.00	92.20
70.00	63.03	2.00	3.90	96.10
71.00	64.39	1.00	2.00	98.00
74.00	68.47	1.00	2.00	100.00

Table 36 :

Memory Raw & Equivalent Standardized & percentile Scores For **Entire Population**

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
0.00	24.77	2.00	0.80	0.80
1.00	26.26	1.00	0.40	1.20
2.00	27.75	3.00	1.20	2.40
3.00	29.25	5.00	2.00	4.40
4.00	30.74	3.00	1.20	5.60
5.00	32.23	3.00	1.20	6.90
6.00	33.73	8.00	3.20	10.10
7.00	35.22	5.00	2.00	12.10
8.00	36.71	8.00	3.20	15.30
9.00	38.21	7.00	2.80	18.10
10.00	39.70	5.00	2.00	20.20
11.00	41.19	5.00	2.00	22.20
12.00	42.68	9.00	3.60	25.80
13.00	44.18	9.00	3.60	29.40
14.00	45.67	12.00	4.80	34.30
15.00	47.16	7.00	2.80	37.10
16.00	48.66	9.00	3.60	40.70
17.00	50.15	10.00	4.00	44.80
18.00	51.64	13.00	5.20	50.00
19.00	53.14	13.00	5.20	55.20
20.00	54.63	15.00	6.00	61.30
21.00	56.12	13.00	5.20	66.50
22.00	57.62	14.00	5.60	72.20
23.00	59.11	28.00	11.30	83.50
24.00	60.60	16.00	6.50	89.90
25.00	62.10	25.00	10.10	100.00

Table 37 :

Memory Raw & Equivalent Standardized & percentile Scores For Age Group I

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
0.00	31.91	2.00	4.30	4.30
2.00	35.43	1.00	2.10	6.40
3.00	37.20	3.00	6.40	12.80
4.00	38.96	2.00	4.30	17.00
5.00	40.72	1.00	2.10	19.10
6.00	42.49	5.00	10.60	29.80
7.00	44.25	3.00	6.40	36.20
8.00	46.01	3.00	6.40	42.60
9.00	47.78	3.00	6.40	48.90
10.00	49.54	2.00	4.30	53.20
11.00	51.31	3.00	6.40	59.60
12.00	53.07	2.00	4.30	63.80
13.00	54.83	2.00	4.30	68.10
14.00	56.60	3.00	6.40	74.50
15.00	58.36	1.00	2.10	76.60
16.00	60.12	4.00	8.50	85.10
17.00	61.89	4.00	8.50	93.60
18.00	63.65	1.00	2.10	95.70
21.00	68.94	1.00	2.10	97.90
25.00	76.00	1.00	2.10	100.00

Table 38 :

Memory Raw & Equivalent Standardized & percentile Scores For Age Group II

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
1.00	27.22	1.00	2.20	2.20
4.00	32.33	1.00	2.20	4.30
5.00	34.04	2.00	4.30	8.70
6.00	35.74	2.00	4.30	13.00
8.00	39.15	2.00	4.30	17.40
9.00	40.85	2.00	4.30	21.70
10.00	42.56	3.00	6.50	28.30
11.00	44.26	1.00	2.20	30.40
12.00	45.96	5.00	10.90	41.30
13.00	47.67	2.00	4.30	45.70
15.00	51.07	3.00	6.50	52.20
16.00	52.78	2.00	4.30	56.50
17.00	54.48	2.00	4.30	60.90
18.00	56.18	5.00	10.90	71.70
19.00	57.89	5.00	10.90	82.60
20.00	59.59	3.00	6.50	89.10
21.00	61.30	1.00	2.20	91.30
23.00	64.70	2.00	4.30	95.70
25.00	68.11	2.00	4.30	100.00

Table 39 :

Memory Raw & Equivalent Standardized & percentile Scores For Age Group III

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
2.00	25.11	2.00	3.80	3.80
6.00	31.83	1.00	1.90	5.70
7.00	33.51	2.00	3.80	9.40
8.00	35.19	2.00	3.80	13.20
9.00	36.87	2.00	3.80	17.00
12.00	41.92	2.00	3.80	20.80
13.00	43.60	4.00	7.50	28.30
14.00	45.28	2.00	3.80	32.10
15.00	46.96	3.00	5.70	37.70
16.00	48.64	2.00	3.80	41.50
17.00	50.32	2.00	3.80	45.30
18.00	52.00	2.00	3.80	49.10
19.00	53.68	4.00	7.50	56.60
20.00	55.36	4.00	7.50	64.20
21.00	57.04	4.00	7.50	71.70
22.00	58.72	6.00	11.30	83.00
23.00	60.40	7.00	13.20	96.20
24.00	62.08	1.00	1.90	98.10
25.00	63.77	1.00	1.90	100.00

Table 40 :

Memory Raw & Equivalent Standardized & percentile Scores For Age Group IV

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
3.00	14.86	1.00	2.00	2.00
8.00	25.14	1.00	2.00	3.90
11.00	29.84	1.00	2.00	5.90
13.00	35.43	1.00	2.00	7.80
14.00	37.49	6.00	11.80	19.60
16.00	41.61	1.00	2.00	21.60
18.00	45.72	3.00	5.90	27.50
19.00	47.78	2.00	3.90	31.40
20.00	49.84	4.00	7.80	39.20
21.00	51.89	6.00	11.80	51.00
22.00	53.95	5.00	9.80	60.80
23.00	56.01	8.00	15.70	76.50
24.00	58.07	3.00	5.90	82.40
25.00	60.12	9.00	17.60	100.00

Table 41 :

Memory Raw & Equivalent Standardized & percentile Scores For Age Group V

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
3.00	-1.11	1.00	2.00	2.00
14.00	28.14	1.00	2.00	3.90
17.00	36.18	2.00	3.90	7.80
18.00	38.78	2.00	3.90	11.80
19.00	41.44	2.00	3.90	15.70
20.00	40.10	4.00	7.80	23.50
21.00	46.76	1.00	2.00	25.50
22.00	47.80	3.00	5.90	31.40
23.00	52.08	11.00	21.60	52.90
24.00	54.73	12.00	23.50	76.50
25.00	57.39	12.00	23.50	100.00

Table 42 :

Motor Raw & Equivalent Standardized & percentile Scores
For Entire Population

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
8.00	28.13	2.00	0.80	0.80
10.00	29.97	1.00	0.40	1.20
11.00	30.89	2.00	0.80	2.00
12.00	31.81	6.00	2.40	4.40
13.00	32.73	3.00	1.20	5.60
14.00	33.65	1.00	0.40	6.00
15.00	34.57	3.00	1.20	7.30
16.00	35.49	2.00	0.80	8.10
17.00	36.41	6.00	2.40	10.50
18.00	37.33	4.00	1.60	12.10
19.00	38.25	6.00	2.40	14.50
20.00	39.17	8.00	3.20	17.70
21.00	40.09	9.00	3.60	21.40
22.00	41.01	4.00	1.60	23.00
23.00	41.93	4.00	1.60	24.60
24.00	42.85	8.00	3.20	27.80
25.00	43.77	12.00	4.80	32.70
26.00	44.69	5.00	2.00	34.70
27.00	45.61	9.00	3.60	38.30
28.00	46.53	5.00	2.00	40.30
29.00	47.45	2.00	0.80	41.10
30.00	48.37	5.00	2.00	43.10
31.00	49.29	10.00	4.00	47.20
32.00	50.21	7.00	2.80	50.00
33.00	51.13	12.00	4.80	54.80
34.00	52.05	5.00	2.00	56.90
35.00	52.97	7.00	2.80	59.70
36.00	53.89	11.00	4.40	64.10
37.00	54.81	10.00	4.00	68.10
38.00	55.73	12.00	4.80	73.00
39.00	56.65	2.00	0.80	73.80

Table 42 : (Cont'd)

Motor Raw & Equivalent Standardized & percentile Scores
For **Entire Population**

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
40.00	57.57	9.00	3.60	77.40
41.00	58.49	3.00	1.20	78.60
42.00	59.41	7.00	2.80	81.50
43.00	60.33	6.00	2.40	83.90
44.00	61.25	3.00	1.20	85.10
45.00	62.17	3.00	1.20	86.30
46.00	63.09	4.00	1.60	87.90
47.00	64.01	6.00	2.40	90.30
48.00	64.93	10.00	4.00	94.40
49.00	65.85	5.00	2.00	96.40
50.00	66.77	2.00	0.80	97.20
51.00	67.69	3.00	1.20	98.40
52.00	68.61	3.00	1.20	99.60
53.00	69.53	1.00	0.40	100.00

Table 43 :

Motor Raw & Equivalent Standardized & percentile Scores For Age Group I

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
8.00	30.06	2.00	4.30	4.30
10.00	34.39	1.00	2.10	6.40
11.00	36.56	2.00	4.30	10.60
12.00	38.72	5.00	10.60	21.30
13.00	40.89	3.00	6.40	27.70
14.00	43.05	1.00	2.10	29.80
15.00	45.22	3.00	6.40	36.20
16.00	47.38	1.00	2.10	38.30
17.00	49.55	6.00	12.80	51.10
18.00	51.71	2.00	4.30	55.30
19.00	53.87	4.00	8.50	63.80
20.00	56.04	4.00	8.50	72.30
21.00	58.20	6.00	12.80	85.10
22.00	60.37	2.00	4.30	89.40
23.00	62.53	1.00	2.10	91.50
24.00	64.70	3.00	6.40	97.90
28.00	73.36	1.00	2.10	100.00

Table 44 :

Motor Raw & Equivalent Standardized & percentile Scores For Age Group II

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
12.00	27.54	1.00	2.20	2.20
16.00	33.62	1.00	2.20	4.30
18.00	36.66	2.00	4.30	8.70
19.00	38.18	1.00	2.20	10.90
20.00	39.70	4.00	8.70	19.60
21.00	41.22	2.00	4.30	23.90
23.00	44.26	2.00	4.30	28.30
24.00	45.78	4.00	8.70	37.00
25.00	47.30	6.00	13.00	50.00
26.00	48.81	1.00	2.20	52.20
27.00	50.33	5.00	10.90	63.00
28.00	51.85	1.00	2.20	65.20
29.00	53.37	1.00	2.20	67.40
30.00	54.89	1.00	2.20	69.60
31.00	56.41	3.00	6.50	76.10
32.00	57.93	2.00	4.30	80.40
33.00	59.45	1.00	2.20	82.60
34.00	60.97	1.00	2.20	84.80
36.00	64.01	3.00	6.50	91.30
37.00	65.53	2.00	4.30	95.70
38.00	67.05	1.00	2.20	97.80
43.00	74.65	1.00	2.20	100.00

Table 45 :

Motor Raw & Equivalent Standardized & percentile Scores For Age Group III

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
19.00	28.90	1.00	1.90	1.90
21.00	32.13	1.00	1.90	3.80
22.00	33.75	1.00	1.90	5.70
23.00	35.36	1.00	1.90	7.50
24.00	36.98	1.00	1.90	9.40
25.00	38.59	4.00	7.50	17.00
26.00	40.21	2.00	3.80	20.80
27.00	41.83	3.00	5.70	26.40
28.00	43.44	2.00	3.80	30.20
29.00	45.06	1.00	1.90	32.10
30.00	46.67	2.00	3.80	35.80
31.00	48.29	5.00	9.40	45.30
32.00	49.90	3.00	5.70	50.90
33.00	51.52	6.00	11.30	62.30
34.00	53.13	2.00	3.80	66.00
35.00	54.75	3.00	5.70	71.70
36.00	56.37	2.00	3.80	75.50
37.00	57.98	4.00	7.50	83.00
38.00	59.60	4.00	7.50	90.60
40.00	62.83	2.00	3.80	94.30
42.00	66.06	1.00	1.90	96.20
47.00	74.14	1.00	1.90	98.10
49.00	77.37	1.00	1.90	100.00

Table 46 :

Motor Raw & Equivalent Standardized & percentile Scores For Age Group IV

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
22.00	27.75	1.00	2.00	2.00
25.00	32.05	2.00	3.90	5.90
26.00	33.49	2.00	3.90	9.80
28.00	36.36	1.00	2.00	11.80
30.00	39.23	1.00	2.00	13.70
31.00	40.66	2.00	3.90	17.60
32.00	42.10	1.00	2.00	19.60
33.00	43.53	5.00	9.80	29.40
34.00	44.96	1.00	2.00	31.40
35.00	46.40	3.00	5.90	37.30
36.00	47.83	3.00	5.90	43.10
37.00	49.27	3.00	5.90	49.00
38.00	50.70	6.00	11.80	60.80
39.00	52.14	1.00	2.00	62.70
40.00	53.57	4.00	7.80	70.60
41.00	55.01	1.00	2.00	72.50
42.00	56.44	2.00	3.90	76.50
43.00	57.88	1.00	2.00	78.40
44.00	59.31	2.00	3.90	82.40
45.00	60.75	2.00	3.90	86.30
46.00	62.18	1.00	2.00	88.20
48.00	65.05	3.00	5.90	94.10
49.00	66.49	1.00	2.00	96.10
50.00	67.92	1.00	2.00	98.00
52.00	70.79	1.00	2.00	100.00

Table 47 :

Motor Raw & Equivalent Standardized & percentile Scores For Age Group V

Raw Score	Std. Score	Frequency	Percent	Cumulative percent
27.00	22.45	1.00	2.00	2.00
30.00	27.40	1.00	2.00	3.90
32.00	30.71	1.00	2.00	5.90
34.00	34.02	1.00	2.00	7.80
35.00	35.67	1.00	2.00	9.80
36.00	37.32	3.00	5.90	15.70
37.00	33.98	1.00	2.00	17.60
38.00	40.63	1.00	2.00	19.60
39.00	42.28	1.00	2.00	21.60
40.00	43.93	3.00	5.90	27.50
41.00	45.59	2.00	3.90	31.40
42.00	47.24	4.00	7.80	39.20
43.00	48.89	4.00	7.80	47.10
44.00	50.55	1.00	2.00	49.00
45.00	52.20	1.00	2.00	51.00
46.00	53.85	3.00	5.90	56.90
47.00	55.50	5.00	9.80	66.70
48.00	57.16	7.00	13.70	80.40
49.00	58.81	3.00	5.90	86.30
50.00	60.46	1.00	2.00	88.20
51.00	62.12	3.00	5.90	94.10
52.00	63.77	2.00	3.90	98.00
53.00	65.42	1.00	2.00	100.00

CHAPTER VIII

Reliability and Validity

This chapter presents various reliability and validity data obtained for the LPRT and evaluates its psychometric properties.

Test Reliability

Test reliability refers to the consistency of test scores. Consistent measurement is a necessary condition for high quality educational and psychological testing. Inconsistency in test scores could result from changes in behavior or from variations in the sample of test items, or still from inconsistencies in scoring procedure, etc. If the scores from a test are inconsistent, i.e. if their reliability coefficient is small, then we have less confidence in judgments made concerning a person's true ability based on that

particular test.

When test scores are unreliable, observed differences and equalities are more likely to represent rather large measurement errors than to reflect people's true abilities. Therefore, a test should have an acceptable degree of reliability to allow for valid and precise decisions based on it.

The reliability of the LPRT was established by determining its internal consistency through the computation of coefficient alpha. This reliability coefficient gives an idea of the homogeneity of the test and the consistency of responses fron item to item. The LPRT's alpha is 0.90 (Table 48). Just as norms were reported in Chapter VII for the major scales and by age group, the reliability coefficients of the Language, Motor, Cocept, and Memory Scales are presented in Table 48 for the five age groups and for the total population as well.

To provide another estimate of the stability of scores on the LPRT, the standard errors of measurement (SEm) are also presented in Table 48. This measure is

Table 48 :

Reliability Coefficients and Standard Error of Measurment of the Scales by **Age Group**

		Memory (11 items)		Motor (37 Items)		Concept (22 Items)		Language (52 Items)		Readiness (122 Items)	
AGE	N	r	SEm	r	SEm	r	SEm	r	SEm	r	SEm
2 ½	47	.81	2.47	.66	2.69	.52	7.59	.86	4.00	.84	9.48
3	46	.78	2.75	.81	2.87	.44	7.03	.83	3.80	.70	13.10
3 ½	53	.79	2.73	.80	2.77	.53	6.10	.75	3.59	.82	8.47
4	51	.82	2.06	.79	3.19	.40	5.44	.67	3.92	.84	7.68
4 ½	51	.79	1.72	.76	2.96	.35	7.78	.73	3.82	.81	9.35
Total	248	.85		.92		.53		.86		.90	

indicative of the band of error which surrounds a test score; obviously the smaller the SEm, the less allowance one needs to make for the unreliability of the score.

The instrument stability over time (test-retest) was not established as it involved giving the same test twice with all the bias that might entail--being exposed

to the same items and to practice effect. To overcome this problem,one would have to lengthen the test-retest period to at least six months. But because we are dealing with preschoolers who are developing rapidly, a six-month retesting would involve substantial developmental changes which will jeoperdize the reliability of the scores. Consequently, only the internal consistency of the LPRT was reported.

How reliable is the LPRT ? A close look at Table 48 reveals that the test as a whole is highly reliable ($r=0.90$) for the whole population and for each of the five age groups ($0.70 \leq r \leq 0.84$). Each of the major scales (L, M, C, & Me) also proved to be reliable too but with the Concept Scale's reliability ($r=0.53$),somewhat and to a lesser extent than the other reliabilities. The items of the Concept Scale which contributed to this lower r were detected through their item/total correlations and kept because they added to the validity of the test.

Concept formation and positioning are important aspects of readiness which had to be assessed even at the expense of reliability. A high coefficent alpha is a major aim of test constructors but only as long as it ensures high validity and not at the expense of validity (Kline, 1986).

The high reliabilities exhibited by various scales raise the question of the possibility of having only one scale i.e. a Readiness one and not a scale made up of 4 factors (M, Me, C, L). To test this question a correlation was run between the various scales. The results reported in Table 49 reveal moderate correlations between the scales, the highest being r=0.70 between the Language and Concept scales. The moderate correlation rules out the possibility of a one factor and reaffirms the need to report the results in subscores as well as total scores.

Table 49 :

Correlation coefficients of the Scales

	Memory	Motor	Concept	Language
Memory	**1.00**	0.66	0.51	0.65
Motor	0.66	**1.00**	0.57	0.70
Concept	0.51	0.57	**1.00**	0.67
Language	0.65	0.70	0.67	**1.00**

Validity.

Validity indicates the degree to which the test is capable of measuring what it claims to measure. Tests are used for several types of judgment, and for each type of judgment, a different type of investigation or evidence is required to establish validity. The answer to the general question, "Is the test valid ?" depends on the purpose of the test and the context in which the test is intended to be used. Therefore, the clear delineation of the kinds of score interpretations one would like to make or the types of decisions one wants to make is important before investigating a test's validity.

Because there is no single validity question, there is no single "validity index" or "validity coefficient". However, different kinds of validity questions do exist. Each question views the test from a somewhat different perspective, emphasizing a different aspect of the test. Both qualitative and quantitative information answer each question, but the degree of validity a test has for a specific purpose is ultimately a matter that requires professional judgment. In the end, one has to integrate a wide variety of kinds of information to decide whether a test is valid for a given set of decisions (Nitko, 1983).

With respect to the LPRT, its basic function is to reliably identify those children who are ready for school,i.e. to identify those who have attained the prerequisite skills, knowledge, and other appropriate behavioral traits that enable them to profit maximally from school instruction. Therefore, in order to

establish the validity of the LPRT, the following validity questions had to be answered and evidence had to be provided in their support:

Q1. To what extent are the items on the LPRT representative of the domain of tasks and skills needed for admission to school ?

Q2. To what extent do scores on the test correlate with other measures or criteria of readiness and thus predict a person's score on other criteria ?

Q3. To what extent does the test measure the trait or attribute of readiness ?

In answering these questions, the following procedures were followed:

1. Content validity. The development of the LPRT went through the following stages:

a. Early childhood and kindergarten teachers and principals were interviewed in order to identify behaviors and skills deemed necessary for school

success.

b. A review of the literature on readiness and assessment instruments used was done.

c. Based on (a) and (b),a list of behaviors that needed to be assessed was prepared, and a description for each behavior was put.

d. A set of items was then prepared to cover each behavior.

In this manner, the adequacy of the LPRT as representative of the domain of skills needed for school admission was established.

2. Criterion validity. This kind of evidence was demonstrated by comparing the test scores with one or more external variables considered to provide a direct measure of the characteristic or behavior in question. This comparison usually takes the form of a correlation relating the score to a criterion measure.

With respect to the LPRT, two types of evidence of

its criterion-related validity were obtained. The LPRT scores were correlated with scores on the DIAL-R (Developmental indicators for the Assessment of Learning-Revised), another test of early motoric, conceptual, and language development. The correlations are reported in Table 50. The correlation between the Readiness Score on the two tests and for both groups (N=44) reached r=0.87, and it was moderate on the Motor and Concept Scales ($0.53 \leq r \leq 0.66$) but low on the Language Scale (r=0.29). One possible explanation is that the LPRT and DIAL-R Language Scales measure different tasks. Both tests purport to measure similar variables, and were given to similar populations and age groups. The DIAL-R has excellent psychometric properties but cannot be used with Lebanese children as it was normed on American children. Therefore, there is a need for an instrument that measures the same variables while having been normed on Lebanese children. The LPRT's moderate to

good correlation with the DIAL-R proved its concurrent validation with the DIAL-R.

Table 50 :

Correlation Between Scores on LPRT & DIAL-R

	Group		
Scale	I[1]	II[2]	I+II
Motor	.53	.59	
Concept	.58	.66	
Language	.28	.29	
Readiness	.47	.70	.87

1 : Interval between testings was 3-6 months

2 : Interval between testings was 0-2 months

The second criterion-related evidence for the LPRT was obtained when the LPRT scores were correlated with teacher ratings. The LPRT R scores of 62 preschoolers aged 3-5 were correlated with end-of-year teacher evaluations. The end of the year reports, and as expected in preschool, were elaborate and quite qualitative in nature and therefore were converted to a

rating on a three point scale. The correlation coefficient between this rating and the subjects' R scores was r=0.41. The interval between the two scores was six months, which can be taken as evidence of the predictive validation of the LPRT. The coefficient is moderate but can be improved by devising a more sensitive teacher rating scale. The one used in this study was limited to three intervals only,which affects its precision,yet it does give an indication of the relation of the LPRT to teacher evaluation, a major detector of readiness.

3. Construct validity. This kind of question is evaluated by determining the degree to which certain explanatory concepts or constructs account for performance on the test. To examine construct validity one requires a combination of logical and empirical work. The procedure involves certain steps which will be demonstrated by using the example of the

LPRT . The first step is to inquire what hypotheses can be made from theory regarding the behavior of persons with high or low readiness scores ? In response,the hypotheses that each age level should signify a higher score and that all tasks should demonstrate consistent developmental trends within specific behaviors is made. Second, data is gathered to test these hypotheses. The normative data collected contributed towards construct validity of the LPRT. Third in light of the evidence, an inference is made as to whether the theory is adequate to explain the data collected. The significant age differences noted on the normative data and on all the scales is additional evidence of the adequacy of the theory and the construct validity of the LPRT.

Implications

The above discussion of the reliability and validity of the LPRT supports the utility of the

instrument as a reliable measure of a child's readiness for school. The rigorous methods followed in test construction ensured that the LPRT fulfill the function for which it was developed, and three types of evidence were given to that effect. The LPRT appears to be valid for preschoolers aged 2.5-5.0 who come from similar backgrounds and possess similar characteristics (sex, age, SEL) as those in the normative sample. The sample is broadly representative of the population residing in Beirut, but due to the high mobility and internal migration evidenced during the war years, the Beirut population is considered to be representative of Lebanon as a whole (Ma'aluf, 1983). However a normative sample size of 250 subjects is considered relatively small and the sample should be extended to the public sector and then to national level.

To better fulfill its purpose and to avoid any

examiner bias, the LPRT should be administered only by trained examiners and teachers. Objectivity in scoring should be adhered to in order to avoid any instrumentation bias. These last points, if followed, will maximize the external validity of the LPRT, i.e. they will assure its generality and broad usefulness.

CHAPTER IX

Summary, Problems and Future Recommendations

Summary

This study aimed at developing a Lebanese preschool instrument, a Lebanese preschool readiness test that can reliably, accurately, and rapidly identify children who are ready for preschool. It aimed at providing an index of a child's general readiness level, as well as an assessment of his developmental status in the conceptual, physical, and linguistic domains. These being the most important readiness skills needed for entering preschool and for future performance in school. The need for a culturally adapted objective instrument was emphasized in several chapters of the thesis; and as revealed in interviews conducted with preschool administrators in Lebanon, by various research studies cited, and finally by the recommended model. Collecting norms and establishing the psychometric properties of

the instrument was another major function of this study.

To fulfil these functions a thorough review of the literature on preschool screening, preschool instruments, preschool child, and early childhood education was presented. In addition, interviews were conducted with representative sample of preschool teachers and co-ordinators in Lebanon, and a clear definition of abilities that need to be assessed before admission was reached. Based on this needs assessment, test specifications were laid down, items were constructed, materials prepared, and directions for administration and scoring were written. The initial version of the test was piloted on a sample of 50 Lebanese children of both sexes aged 2.6 to 5.0. Based on the results of the pilot survey, test items were analyzed. Subsequently some items were revised while others were completely discarded and replaced by new items. The new items were further tested before the

final version of the test appeared with 122 items divided into four major scales: Motor, Memory, Concept, and Language.

The test was then normed on a sample of 250 Lebanese children aged 2.6 - 5.0 enrolled (or applying) to large institutions representative of preschool population in Beirut and reflecting three socio*economic levels (i.e. high, middle, and low). Norms were reported in the form of standardized scores and percentiles. T. and F. tests revealed that the subjects' means significantly varied by age, but that no significant sex differences were noted on the major scales (M, Me, L, & C), but that significant socio-economic differences were noted on the Language scale. The reliability of the instrument was assessed by computing its alpha coefficient, and the obtained r (=0.90) spoke well for the internal stability of the LPRT. Finally, the criterion validity of the LPRT was

established by correlating subjects' scores with end of the year teacher ratings, and with their score on another preschool screening instrument, the DIAL R. In addition, and concurrent with the development of the test, other validity questions (content, construct) were also answered.

Problems

Several problems were encountered in this process and they were mainly due to the unsettled security situation in Lebanon during the time of norming i.e. January - May 1990. Norming had to be interrupted several times because the security situation could not permit it, and some institutions had to be replaced because of their unsafe location. The unsettled situation also affected the co-operation of the preschool administrators and teachers. They were afraid that norming will affect their daily routine and they were anxious to finish their programs and not to waste

time. At the same time, one has to concede that we were welcomed by many institutions who felt the need for such an instrument and expressed an interest in using it, once it was ready. They provided us with quiet rooms beside their classrooms and were very cooperative.

Soliciting the co-operation of the children was another chore examiners had to deal with. Some children readily co-operated with them as they felt at home in school environment and they thought them like their teachers. Others felt uneasy and it took a lot of coaxing to have their co-operation. Few would not co-operate at all and examiner had to ask their form teacher or mother to stay while the child is being assessed. The language used with children was another question that had to be dealt with. Arabic was the main language used but it had to be supplemented with English or French depending on the child's fluency. Most of Lebanese children are bilingual and they learn many of

their new words (e.g. colors, shapes, fruits, animals, etc.) in a foreign language. The length of the time the test took (20-30 mins) was another point that needs to be considered as it was difficult to maintain the interest and attention of some children, especially the younger ones for such a period.

Future Recommendations

This study has attempted to satisfy a basic need of the preschool and early childhood programs in Lebanon, namely to provide a reliable and accurate index of a child's readiness for preschool. However, and in order to ensure that the use made of the instrument yields optimal results, the following recommendations for future research are suggested:

1. As this study was based on the responses of preschoolers attending private institutions in Beirut, it is felt that additional research should be carried out with samples of public school preschoolers. This,

however, is limited to four year olds as public schools do not admit before this age. It is also recommended that Lebanese national norms for the LPRT be established.

2. It is recommended that more sophisticated research be carried out to determine the predictive validity of the LPRT. The quoted predictive coefficient of r=0.41 between subjects' R scores and end of year teacher ratings was quite crude, as the examiner's subjective judgement was used in transforming teacher reports to a rating on a 3 point scale. Subjects' R and subscale scores should be correlated with end of first and second year reports and a more objective approach should be used in evaluating these reports.

3. A social-emotional scale should be added to the LPRT to ensure that it covers all aspects of development. The child's affective maturity is an important dimension in his readiness for preschool.

4. Future research should aim at developing an

abridged version of the LPRT with similar psychometric properties but requiring less time. The abridged version can be used for quick assessment or with very young and inattentive children.

5. A factor analysis of the LPRT should be done to identify its factorial structure and to ensure that it accounts for the four basic abilities of motor, memory, language, and concept formation, and that there is no overlap between these four factors. The moderate correlations between the scales reported in table 49 suggest some overlap and a factor analysis is need to determine the extent.

6. Once all the previously mentioned recommendations had been implemented, it is felt that future research should aim at extending the age range of the LPRT to the kindergarten and the pre-elementary levels. Then it can assess readiness for school and for various grade levels within the elementary.

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APPENDIX A :

Lebanese Preschool Readiness Test

(LPRT)

Child'S Name : _____

Last First Father

Address : _____

_____

School : _____ Class : _____

Age : _____ Sex : _____

Examiner : _____

	Year	Month	Day
Birth Date	____	_____	____
Todays Date	____	_____	____
Age	____	_____	____

Item	Age In Mos	Scale	Item	Score	Notes
			Personal Data		
1.	30	L	Give Full Name (First & Last)	(0-1)	
2.	36	L	Give Sex		
3.	72	L	Give Age		
			Personal Data Score		
			Object Manipulation : Block Building		
4.	24	M	Builds a tower of 6	(0-3)	
5.	26	M	Builds a Train		
6.	36	M	Builds a bridge		
			Object Manipulation : Puzzle Solving		
7.	36	M	2 Pieces of a Cat	(0-1)	
8.	>36	M	3 Pieces of a Horse	(0-2)	
9.	>36	M	4 Pieces of a House	(0-4)	
			Object Manipulation Score		
			Identify Body Parts		
10	24-30	L	Identify : Head	(0-1)	
11			Hands		
12			Feet		
13			Nose		
14			Hair		
15			Ear		
16			Teeth		
17			Tongue		
18			Neck		
19			Stomach		
20			Mouth		
			Identify Body Parts Score		
			Shapes		
			Places Shapes in a 3-Hole FormBoard	(0-3)	
21	24	C	With Demonstration		
22	30		Without Demonstration	(R-W)	
23	24	C	Matching 2 Shapes		
24	36	C	Matching 4 Shapes		
			Shapes Score		

Item	Age In Mos	Scale	Item	Score	Notes
V			**Colors**		
25	30-36	C	Matching Coloured Blocks	(R-W)	
26	36+	C	Sorting Blocks By Colour		
27	36-60	C	Naming Colours : Red	(0-1)	
28			Orange		
29			White		
30			Green		
31			Blue		
32			Yellow		
33			Black		
				Colours Score	
VI			**Identifying Concepts**		
34	42	C	Size (Big - Small)	(0-1)	
35	42	C	Length (Tall - Short)		
36	42	C	Weight (Heavy - Light)		
37	42	C	Speed (Fast - Slow)		
				Identifying Concepts Score	
VII			**Positioning**		
38	24-36	C	Put Block ON Box	(0-1)	
39	24-36	C	Put Block IN Box		
40	24-36	C	Put Block BEHIND Box		
41	24-36	C	Put Block INFRONT of Box		
42	24-36	C	Put Block UNDER Box		
				Positioning Score	
VIII			**Leg Co-ordination : Walking**		
43	24	M	Walks a Straight line (10 ft.)	(0-2)	
44	28	M	Walks Backward on a Line		
45	30	M	Walks on tip toe on Line		
46		M	Walks up & down Stairs, 2ft.a Step		
47	30	M	Walks up & down Stairs Alternating		
48	42	M	Walks heel to toe		
49	48	M	Backward heel to toe		

Item	Age In Mos	Scale	Item	Score	Notes
			Leg Co-ordination : jumping, Hoping, & Skipping	(0-1)	
50	25	M	Jumps from bottom steps on both ft		
51	28	M	Jumps from 2nd step on both ft.		
52	36	M	Makes a broad jump (9 ins.)		
53	42	M	Hops on 1ft. for 3 steps : Right		
54	42	M	left		
				(0-3)	
55	48	M	Skips on alternate ft.		
				☐	
			Leg Co-ordination : Balancing	(0-1)	
56	30	M	Standing on : 1 ft. for 1 sec.		
57	30	M	other ft. for 1 sec.		
58	39	M	1 ft. for 3 sec.		
59	39	M	other ft. for 3 sec.		
60	54	M	1 ft. for 6 sec.		
61	54	M	other ft. for 6 sec.		
				☐	
			Leg Co-ordination Score	☐	
IX			**Hand & Eye Co-ordination : Ball Trowing & Catching**	(0-1)	
62	30	M	Throw ball overhand		
63	48	M	Catch bounced ball		
64	48	M	Catch bean bag and throw it		
65	48	M	Throw bean bag at target		
				☐	
			Hand & Eye Co-ordination : Draw a Design	(0-1)	
66	24	M	Copy a Vertical line |		
67	>24	M	Copy a horizontal line —		
68	36	M	Imitate a circle O		
69	42	M	Imitate a cross +		
				☐	
			Hand & Eye Co-ordination : Cutting & Folding Paper	(0-1)	
70	24-36	M	Cutting with scissors : Snaps		
71	48	M	line		
72	28	M	Folding paper : Once		
73	36	M	Twice		
				☐	
			Hand & Eye Co-ordination Score	☐	

Item	Age In Mos	Scale	Item	Score	Notes
X			**Identifying Objects : By Name**	(0-1)	
74		L	Identifying Familiar Objects : Hanger		
75		L	Barrel		
76		L	Rabbit		
77		L	Hat		
78		L	Leaf		
79		L	Star		
80		L	Cage		
81		L	Ring		
82		L	Rooster		
83		L	Carpet		
84		L	Watch		
85		L	Bear		
			Identifying Objects : By Use	(0-1)	
86	30+	L	Show me the one we : Use for ironing — Iron		
87		L	Eat — Ice Cream		
88		L	Use for Buying — Coin		
89		L	Eat With — Fork		
90		L	Use under rain — Umbrella		
91		L	Wear — Coat		
92		L	Put water in — Jug		
93		L	Play on it — Swing		
			Identifying Objects : By Naming	(0-1)	
			Show picutue or card. What this?		
94	30+	L	Flower		
95		L	School Bag		
96		L	Table		
97		L	Telephone		
98		L	Bird		
99		L	Cow		
100		L	Coat		
101		L	Apple		
			Object Identification Score		

Item	Age In Mos	Scale	Item	Score	Note

XI Pictorial Memory (0-1)

			Show card & then remove and put among others. Child has to find it among many	
102		Me	Card 1	
103		Me	2	
104		Me	3	

Pictorial Memory Score

XII Comprehension/Information (0-2)

105	36	L	What do we do when: we're hungrry?	
106	42	L	thirsty?	
107	42+	L	cold?	
108		L	tired?	
109		L	it is raining?	
110		L	with our ears?	

Comprehension Score

XIII Verbal Fluency (timed 20") (1'each)

111		L	Name : things to eat	
112		L	animals	
113		L	things we ride in or on	
114		L	things to wear	

Verbal Fluency Score

XIV Verbal Memory (0-3)

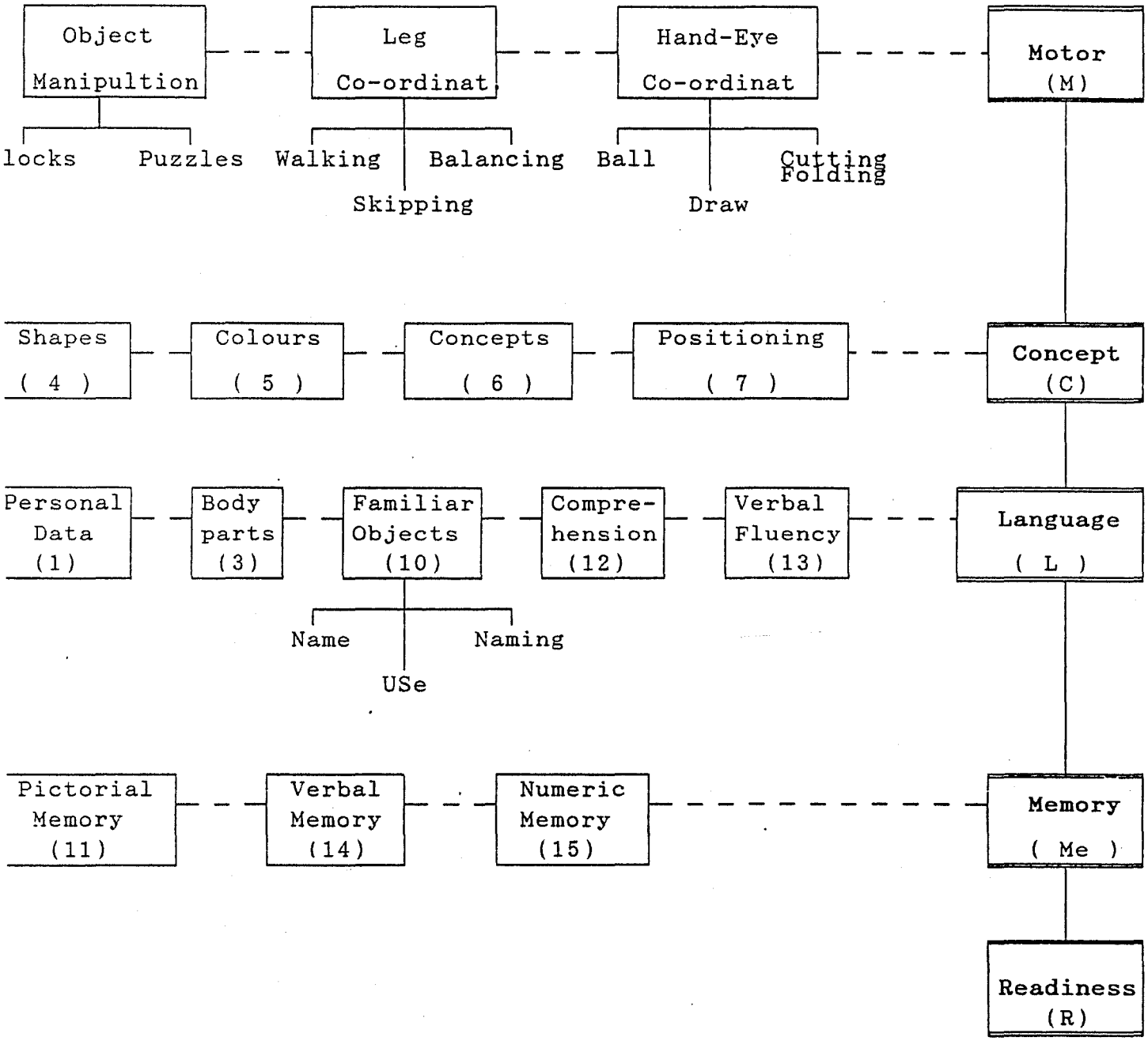
115	36	Me	Repeat : flower-chair-light	
116	36	Me	dress-car-bag	
117	36	Me	the girl is big	
118	36+	Me	sit on the kitchen table	
119		Me	they like to play in the rain	
120		Me	the dog will eat a big breakfast	

Verbal Memory Score

XV Numeric Memory (0-1)

121	30	Me	Repeat : 4 - 7	
122	36	Me	5 - 8 - 3	

Numeric Memory Score


Object Manipultion
Leg Co-ordinat
Hand-Eye Co-ordinat
Motor (M)
locks
Puzzles
Walking
Balancing
Skipping
Ball
Cutting
Folding
Draw
Shapes (4)
Colours (5)
Concepts (6)
Positioning (7)
Concept (C)
Personal Data (1)
Body parts (3)
Familiar Objects (10)
Compre-hension (12)
Verbal Fluency (13)
Language (L)
Name
Naming
USe
Pictorial Memory (11)
Verbal Memory (14)
Numeric Memory (15)
Memory (Me)
Readiness (R)

APPENDIX B :

Directions for Administration and Scoring

I. Personal Data

1-3. Give name, sex and age.

Make sure child is comfortably seated, smile, and ask him: "what is your name?" if he gives only his first name ask him to give his last name. Encourage him by showing interest in his name and noting how beautiful it is. Then say "(call by first name) you are now a big (boy or girl), do you know how old are you ? how may years old are you ?" Repeat question to make child understand. Then ask him "are you a boy or a girl?" if he does not seem to understand tell him you're a nice (boy or girl).

Score: Item 1, 1 point if child gives understandable names. Nicknames are acceptable for first names.

Item 2 & 3, 1 point each for

correct indication of sex and age (approximate). Age can be shown by fingers too.

II Object Manipulation: Block Building

4. Builds a tower of 6.

Place 12 1-inch cubes on the table, and begin building a 6-block tower saying "we're going to build a tall building, a tower, watch while I am making the big tower, now you're going to make a tower just like it." Model must be left infront of the child.

Score: 1 if he builds a tower of 2 blocks.
2 if he builds a tower of 4 or 5 blocks.
3 if he builds a tower of 6 blocks.
Allow a 2nd trial if necessary.

5. Builds a train of cubes.

Put 10 blocks on table, and tell child "now we're going to make a train, watch how I make the

train like this (placing four blocks in a row) and this, and this, and here is the engine (put a fifth block on top). See how it moves (push train around table while imitating sound of train). Now, you make one like mine, make a train like mine (while pushing 5 blocks in front of child).

Score: 1 if he builds a proper base of 4 blocks

2 if the child makes an exact copy of model.

6. Builds a Bridge.

Now we're going to make a bridge, watch what I do (take 3 blocks, make base leaving space between blocks) and then we are going to add top of the bridge (add 3rd block on center space), see, now make a bridge just like mine (push 3 blocks towards child). Model should be left standing.

Score: 1 point if he correctly forms the

base.

2 points if he correctly copies bridge.

Object Manipulation: Puzzle Solving

7. 2-Piece puzzle of a cat.

Place the 2 pieces of the puzzle on the table before the child and tell him,"let's see if you can put these 2 pieces together and make a cat." Start timing allow 30 sec.. If child can't , encourage him, and then perform in front of him saying "see we can make it this way". Let child observe then put pieces as before and ask him to do it himself and give him a 2nd chance.

Score: 1 point if child succeeds on first trial and cat is joined correctly.

8-9. 3 and 4 piece puzzles. same as in 7.

Score: 1 point for each cut correctly joint.

III Identify Body Parts

10-20. Ask child. show me your head, put your hand on your head. If needed encourage child. Use same procedure for all body parts.

Score: 1 for each correct response.

IV. Shapes.

Do item 22 before, if child succeeds give credit to 21.

21. Place forms in a 3-hole formboard with demonstration: Place the formboard in front of the child with the blocks in their positions. Start taking each block out saying "now we take them out" and putting each between child and board and opposite its form. Now say to the child "let's put them back in place". Place forms back in place slowly and making sure child's watching. Then remove forms while saying to the child "now let us see if you can put them

correctly in place".

Score : 1 point for each form placed correctly.

22. Placing shapes in 3-form board without demonstration. Same as 21 except child is asked to place forms without prior demonstration.

23. Matching of two shapes. Place 4 squares and four circles on table before child. Take 1 square, put aside, and ask child to put aside all similar squares.

Score : Count right choices and subract from them wrong choices.

24. Matching of 4 Shapes. Put 4 squares, 4 s, 4 Os, and 4  s in front of child. Ask child to pick circles first, then  s, then  , and then  s.

Score : Right - Wrong choices make up score for this part.

V Colours

25. Matching coloured blocks.

Use eight blocks of different colours (2 red, 2 blue, 2 yellow, and 2 green). Ask the child to pick out the block like the one you pick up; say: " show me the ones that are the same colour as this one". It is not necessary for the child to know the names of the colours.

Score : Right - Wrong choices make up score for this part.

26. Sorting coloured blocks.

Use eight blocks in 25. Ask child to give you all the red ones; replace them. Then ask for all the yellow ones.

Score : Right - Wrong choices make up score for this part.

27-33. Naming colours.

Cards with squares of red, yellow, green, blue, black, white, and orange are presented one at a time. Ask; "what color is this"? presenting the cards in order. If the child does not respond, say: "what do you call this color"?

Score : one for each correct response.

VI Identifying Concepts

34. Can differentiate objects by size.

Show pair of objects on Concept card 1 (hen, chicken), the members of pair differ from each other in size. Present child with pair and ask the child to indicate which is the bigger, then which is the smaller.

Score : one for correct indication of size.

35. Can differentiate objects by length.

Show pair of objects on Concept card 2 (stairs,

pencil), the members of pair differ from each other in length. Present child with pair and ask him to indicate which is the tallest or longest, of the two, and then which is the shortest?

Score : one for correct indication of length.

36. Can differentiate by weight.

Show pair of objects on Concept card 3, (elephant, balloon) the members of pair are similar in size but differ in weight. Present child with pair and ask him to indicate which is the heavier of the two, and then which is the lighter?

Score : one for correct indication of weight.

37. Can differentiate by speed.

Show pair of objects on Concept card 4, (aeroplane, cycle) the members of the pair differ from each other in speed. Present pair to child and ask him

to indicate which is the faster, and then which is the slower.

Score : one for correct indication of speed.

VII Positioning

38-42. Comprehends prepositions.

Give child a block. Tell him to do the following one at a time:

" Put the block on the box (or table)".

" Put the block in the box".

" Put the block under the chair (or table)".

" Put the block infront of box".

" Put the block behind box".

A wrong response should not be corrected.

Score : one for each correct placement of the block.

VIII Leg Co-ordination: Walking

43. Walks a straight line (10 ft.).

Stretch out the 10-foot tape full length on the floor, away from the wall and furniture, or in the hallway, and use scotch tape to fasten it to the floor. Demonstrate to the child by walking on the line for the entire length, always stepping on it, and saying, "see? I walk on it all the way. Now its your turn to do it, you walk on it all the way". To give any credit the child has to walk the entire length of the tape.

Score : 2 points for good balance and nearly all the steps on the tape
1 point for some balance, and no more than 3-4 steps off the tape.
0 points for poor balance, and more than 4 steps off the tape.

44. Walks backward on line.

Demonstrate walking backward on the 10-foot line, and encourage the child to do the same by saying, "Let's see if you can walk backwards like this, you try it". Child might need to be lead to the starting point.

Score : To give credit the child has to walk backward the entire distance. Direction is the important and not keeping feet on line. 2 points if child walks backward with good balance and most of steps on line. 1 point for poor balance and few steps on line.

0 for inability to walk the entire distance backward.

45. Walks on tiptoe on line.

Demonstrate walking on tiptoe the full length of

the 10-foot line. Encourage the child to do the same by saying; "Now I want to see how you can walk on your tiptoes lik this. Try it and show me how well you can do it".

Score : 2 points if child walks on tiptoe the entire length of the line without stepping off, and without touching heels to floor.

1 point if he walks on tiptoe for 10 feet whether he stays on the line or not.

0 for inability to cover any distance on tiptoe.

46. Walks up and down stairs, two feet a step.

Encourage the child to climb the stairs by saying; "Let's see if you can go up the stairs, you try". When he is up encourage him to come down the stairs.

Score : 2 points if the child walks up and down the stairs, standing with both feet on each step before stepping up to the next, and without using his hands for support. If he uses alternating feet give credit for item 47.

1 point if the child walks up and down the stairs, but uses his hands for support and balance occasionally.

0 points if he cannot go up and down the stairs or if he needs constant support.

47. Walks up and down stairs alternating feet.

Administer as in 46.

Score : 2 points if the child walks up and down the stairs stepping to each

successive step with alternating feet, without placing both feet on each step, and without using his hands or arms for support.

1 point if the child walks up and down the stairs with alternating feet and with some support.

0 points if the child does not use alternating feet.

48. Walks heel to toe (10 ft.).

Demonstrate to the child how to walk the 10-ft. line heel to toe by placing the heel of one foot infront of and touching the toe of the other. Walk about 8 steps like this and then tell the child to do it. If the child does not respond, show him how to do it again.

Score : 2 points if the child can walk for most of 10-ft. line placing his

heel infront of his toe.

1 point if the child walks half the distance placing his heel in front of his toe.

0 points if the child fails to imitate the heel to toe walk on the line.

49. Backward heel to toe (10-ft.)

Demonstrate to the child how to walk placing the toe of one foot in back of and touching the heel of the other. Walk about 8 steps like this and tell the child to do it. The child might need another demonstration.

Score : 2 points if child can walk backwards placing his toe in back of his heel for most of the 10-ft. line.

1 point if child can walk backward

half the line.

0 points if he fails to do the backward heel to toe walk.

Leg Co-ordination: Jumping, Hopping, and Skipping

50 Jumps from bottom step on both feet.

Ask the child to jump to the floor from the lowest step of the stairs; Demonstrate if necessary.

Score : 1 point if the child jumps to the floor with both feet in the air at once, i.e. both feet off the floor at the same time.

0 points if child fails to jump or if he moves one foot at a time.

51. Jumps from second step on both feet.

If the child succeeds on item 50 invite him to jump from the second step.

Score : credit is given if the child

performs the jump with both feet in the air at once.

52. Makes a broad jump.

If the child succeeds in item 51, invite him to jump again from the second step and ask him to jump as far as he can. Demonstrate if necessary. Mark with the chalk the point where he touched the floor, and measure the distance. Allow a second trial and encourage him by saying, "Let's see if you can make a longer jump now". Note the actual distance of the longest jump.

Score : 1 point for a minimum of a 14-inch long jump.

53. Hops on 1 foot for 3 steps (right foot).

Using the 10 foot line ask the child to hop on one foot for the entire distance. Demonstrate if necessary.

Score : 1 point if the child completes 3 or

more hops on one foot.

54. Hops on 1 foot for 3 steps (left foot)

same as item 53 except the child has to hop on the other (left) foot.

55. Skips on alternate feet.

Take the child to a side of the room where there is clear space ahead of him. Say, "Now we are going to do some skipping, let's see if you can skip". Demonstrate infront of the child and encourage him to perform.

Score : 3 points if the child skips rhythmically using alternating feet for skipping.

2 points if he skips 2-3 times with only one foot and not the other.

1 point if he hops on one foot 2 or 3 times.

0 if he jumps, runs, gallops or stands still.

Leg Co-ordination: Balancing

56. Stands on 1 foot for 1 sec.

Demonstrate to the child standing on one foot (right first) only while lifting the other one (left) off the floor by bending the leg at the knee. Say, "see how I am standing on one foot? Can you stand on one foot like this? Let's see how you can do it". Time the child with a stopwatch.

Score : Credit is given if the child stands in one spot for the appropriate length of time (1 sec.)

0 points if he can't stand on one foot for 1 sec. but hops for balancing.

If he stands for 5 secs give credit

for item 58.

If he stands for 10 secs give credit for item 60.

57. Stands on other foot for 1 sec.

Say, "Now let's see how you can stand on the other foot alone", if the child doesn't seem to understand what's meant by "other" point to the foot he is supposed to stand on. Time the child.

Score : 1 point if child stands on other foot alone for 1 sec. or more.

0 points if he hops for balance.

Give credit for items 59 and 61 if he stands for 3 and 6 secs. respectively.

58,60. Stands on one foot for 3 secs. and for 6 secs. respectively.

Administer as in item 56.

59,61. Stands on other foot for 3 secs. and for 6

secs. respectively.

Administer as in item 57.

IX. Eye & Hand Co-ordination: Ball Throwing-Catching

62. Throws ball overhand.

Throw the ball gently toward the child. When he has it in his hands, ask him to throw the ball to you saying, "Let's see if you can throw back the ball to me" If the child does not respond,retrieve the ball and show him how to throw it overhand by throwing it to him while saying. "Lets see if you can throw it back to me like this".

Score : 1 point if child is standing at least 3 feet from you and throws ball within arm's length of you between your knees and face.

0 points if child refuses to throw ball towards you, or if ball is

merely dropped, rolled, or flung backwards.

63. Catches bounced ball.

Stand at least 3 feet from the child saying, "Let's see if you can catch the ball" and then bounce the ball to him. The ball should reach the child between his neck and waist. A second trial should be given.

Score : 1 point if the child catches the ball with his hand or hands. The child may catch ball aginst his body if he uses his hands and not his arms.

0 points if the child does not catch ball on both trials or if he uses only his arms against his body to catch the ball.

64-65. Catches beanbag and throws it.

Stand 5-6 feet in front of the child saying, "see, I have a beanbag, I am going to throw it to you, see if you can catch it with both hands and throw it back to me, are you ready ? Here it comes". Throw the beanbag gently toward the child's midline and between the child's knee and shoulder. If the child catches beanbag with both hands, say, "Very good now throw it back to me". If the child misses say, "It's alright, pick beanbag up and throw it back. Let's try again and see if you can catch it this time".

Score : 1 point for each catch and throw.

0 points if he fails to catch bean bag with both hands or to throw it.

Eye - Hand Co-ordination: Draw - A - Design

66. Copy a vertical line

Place a pencil and a single sheet of paper before the child, show him a card with a vertical line

drawn on it, and say. "See this line, can you make one like it on this paper? Try". If the child does not respond, demonstrate by drawing a single vertical stroke about two inches long while saying "Watch and see how I am going to make it" Then urge the child to draw it himself.

Score : 1 if the line is vertical or approximately vertical, it may be slightly curved or broken.

0 points if the child does not copy line or if the line varies more than 30 degrees from vertical, is broken or curved.

67. Copy a horizontal line

Administer as in 66 but showing the card with the horizontal line.

Score : 1 if the line is horizontal or approximately horizontal, it may be

slightly curved or broken.

0 points if the child does not copy the line or if the line varies more than 30 degrees from the horizontal, or is broken or curved.

68 Imitate a circle

Show the child the card with the circle on it, place a white sheet of paper infront of the child, give him a pencil, take a pencil yourself and say, "See this picture, I am going to make one like it, watch me". Draw a circle about 2 ins in diameter in the center of the upper half of the page. Then say, "Now you make one just like it. Make it right here". Point to center of the bottom half of the page.

Score : 1 for any recognizable enclosed form that is not made up of continuous round motions. Disregard proportions.

69. Imitate a cross

Administer as in item 68 while showing the card with the cross on it.

Score : 1 if the child draws 2 lines which intersect at any point. They do not need to be exactly straight.

Eye-Hand Co-ordination: Cutting & Folding Paper

70. Cut with scissors: snaps.

Present child with paper and scissors. Ask him to cut the paper into pieces using the scissors. Demonstrate if necessary.

Score : 1 if the child can open and close scissors several times to cut paper into snaps. Pieces should not be torn.

71. Cut with scissors: line.

Administer as in 70 except the child is asked to

cut the paper into 2 parts as indicated by the line marked on paper.

Score : 1 if the child has the ability to make a single long cut i.e. if he can open and close the scissors several times to make a continuous cut across the paper. The paper should be cut around line and not torn.

72-73. Fold paper: once, twice.

Put a square piece of paper in front of the child. Take a similar one and say, "I am going to fold this piece of paper. Watch carefully how I do it so that you will know how to fold your paper". Then fold the piece of paper in half (lengthways). Ask the child to do the same. Once he does, fold the paper again crossways while saying, "Now we're going to make another fold, watch carefully so that you can do the

same with your paper". Encourage the child to do same.

Score : 1 point for each fold made by child. The fold is acceptable even if it is not a definite crease and even if it has minor discrepancies such as edges or corners which do not match exactly.

X. Identifying objects by Name

74-85. Identify Familiar objects.

Place picture vocabulary card I on the table in front of child and say, "Now I have some pictures to show you, see ! Now, show me the dog. Where is the dog? Put your finger on the dog ". Repeat and urge as necessary. Continue with the other objects on the cards.

Score : 1 point for each correct response.

Identifying objects: by Use

86- 93. Identifying familiar objects by use.

Place picture vocabulary card II on the table infront of the child and say, "Now I have some more pictures to show you, see! Now show me the one we sit on, put your finger on the picture which shows something we sit on". Encourage if necessary, then continue with others saying. "Show me one we eat with".

"Show me one we use for ironing".

"Show me one we use for buying".

"Show me one we wear".

"Show me one we use under rain".

"Show me one we eat".

"Show me one we put water in".

"Show me one we play on it".

Score : 1 point for each correct response.

Identifying Objects: by Naming

94-101. Identify familiar objects by naming.

Present picture cards one at a time, saying. "What is this ? What do you call this ?". Repeat and urge as necessary. Present cards of flower, school bag, table, telephone, bird, cow, coat, and apple.

Score : 1 point for each card to which child gives an acceptable consistently used response.

XI. Pictorial Memory

102-104. Recognize pictures.

Say "Now we're going to play a game where you have to find things. I am going to show you a picture just for a second (show a card with 1 object on it), and then I will show you another card and you have to find one like this object on the other card, Now, are you ready ? Look carefully, so you will be able to

remember it when I turn the card over. Look hard". Expose the first 1 - object card for 5 secs. Then place it face down and expose the multi - object card and say, "Now see if you can find one like the one I showed you. Look carefully so you will be able to get it right". Present the remaining cards in order, repeating the same procedure.

Score : 1 point for each correct recognition of the object.

XII. Comprehension/Information

105-110. Comprehend hungry, thirsty, cold, tired, etc.

Secure the child's attention, and then ask the following question, one at a time.

What should you do when you are hungry ?

What should you do when you are thirsty ?

What should you do when you are cold ?

What should you do when you are tired ?

What should you do when you see it is

raining ?

What do we do with our ears ?

Repeat each question as necessary. Record responses to each question in the notes section.

Score : 2 points for a reasonable, logical and elaborate response.

1 point if the child's response is vague or incomplete yet indicates some knowledge of the concept.

0 points if child's reponse is unreasonable.

XIII. Verbal Fluency

111. Name: Things to eat.

Say "Now let us see if you can give me the name of the things we eat like bread, and banana. Try and name as many as you can before I say stop. Now start". Encourage the child and record the responses given in

20 sec. interval.

Score : 1 point for each acceptable response.

112. Name: Animals.

Say "That's good. Now let us see how many animals like bear, cat, you can name before I say stop". Encourage and write responses he makes in 20 secs.

Score : 1 point for each acceptable response.

113. Name: Things we ride.

Say "Now let's see if you can give me the names of things we ride, like a bus. Try and give as many names as you can remember before I say stop".

Score : 1 point for each acceptable response.

114- Name: Things to wear.

Say "Now, let's see if you can give me the names

of things to wear, like a jacket. Try and give me as many names as you can remember before I say stop".

Score : 1 point for each acceptable response.

XIV. Verbal Memory

115-120. Repeat words and sentences.

Have the child's attention, present the sentences in order, reading slowly and distinctly. Each sentence is read only once and at the rate of one word per second.

Begin with item 1. Say "I am going to say something, and I want you to say it after me, just the way I say it. Ready ? Listen.

1. Say: flower - chair - light.
2. Now say: dress - car - bag.
3. Now say: The girl is big.
4. Now say: Sit on the kitchen table.
5. Now say: They like to play in the rain.

6. And now say: The dog will eat a big breakfast.

Score : Items 1 and 2, 1 point for each word repeated, and deduct 1 point if there is a change is sequence.

Items 3 - 6 1 point is lost for ommision, substitution , addition or transposition.

1 point for each key word repeated.

XV. Numeric Memory

121-122. Repeat numbers.

Say "Now I want to see if you can repeat these numbers after me, just the way I do. Ready ? Listen". Read the numbers clearly and slowly, at a uniform rate of speed, a little less than one per second.

1. Say: 4 - 7.

2. Say: 5 - 8 - 3.

Score : 1 point for each item correctly repeated.

APPENDIX C:

List of Materials

The LPRT kit includes the following materials:

1. 12 coloured blocks
2. Puzzles
   - 2- piece puzzle of a cat
   - 3- piece puzzle of a horse
   - 4- piece puzzle of a house
3. 3- hole formboard.
4. Coloured shapes (circles, triangles, rectangles, and squares)
5. Concept cards (4)
6. 10-ft straight line
7. Ball
8. Bean-bag
9. Blank white paper, and wooden lead pencils
10. A pair of scissors

11. Picture cards

12. Memory cards

In addition, the examiner needs the following:

1. A copy of the directions for administration and scoring.
2. Record forms.
3. A stopwatch.
4. Standard wooden steps.

Appendix D (1) :

(1) Interview conducted with preschool supervisors

Evaluation of Current Pre-school

Screening / Selection Practices

Name :

Position :

Institution :

Adress :

I. Outline your nursery selection procedure:

1. Name of test :

2. Time of year it is given

    a. Jan.-Feb.

    b. March-April

    b. May-June

    d. other

3. Number of years since it has been in use

   a. 1 yr.

   b. 2-3 yrs.

   c. 5 yrs.

   d. other

4. Kind of test

   a. individual

   b. group

5. Length of test

   a. less than 15 mins.

   b. 15 - 30 mins.

   c. 30 - 45 mins.

   d. more than 45 mins.

6. How was it developed or adapted ?

7. Number of scales

   a. 1 scale

   b. several

8. Kind of ability it measures

    a. motoric

    b. language

    c. numeric

    d. perceptual

    e. co-ordination

    f. comprehension

    g. production

    h. other (specify)

9. Testing procedure

    a. oral

    b. performance

    c. mixture

10. Marking procedure Undertaken by:

    a. examiner

    b. supervisor

    c. other

Time

a. during testing

b. after

criteria

a. subjective

b. objective

c. other

Training

a. needed

b. not needed

II. Description of testing procedure

1. General description:

2. Introduction

a. give introduction

b. establish rapport

c. explain purpose

d. start immediately

3. Sequence of administration.

4. Basis of moving from one part to another

a. end of part

b. number of mistakes

c. anxiety or fatigue

d. other

5. Materials used

6. Ending

a. gradually

b. abruptly

c. other

7. Remarks

III. What do you hope to identify through screening ?

(specify objectives, abilities, and skills)

1. intelligence
2. developmental maturity
3. readiness for nursery
4. other (specify)

Remarks

IV. Why do you want to identify the above ?

1. selection criteria
2. importance for future performance
3. do not know reason
4. other (specify)

Remarks

V. Are these abilities important in school performance?

How do you know ?

1. past experience
2. conducted research
3. read about it
4. match objectives
5. told by someone

Remarks

VI. How seriously test results are taken into consideration while selecting students ?

1. they are only criteria
2. other factors are equally important (specify)
3. other factors are more important (specify)

Remarks

VII. **Are results conveyed to parents ?**

1. Yes, totally and if requested
2. Yes, some of them
3. Not usually
4. No, it is confidential

Remarks

VIII. **What later use (if any) is made of scores ?**

1. research
2. diagnosis of learning problems
3. no use
4. others

IX. **How do you evaluate present practices ?**

1. fulfilled its function (specify)
2. an effective selection procedure

3. easy to administer

4. economical in time and material

5. requires little training

6. are objective

7. need improvement

8. culturally biased

9. not good at all

10. other (specify)

Remarks

X. What in your opinion should an ideal procedure involve?

1. cultural adaptation

2. objectivity

3. standardization

4. sound psychometric properties

5. reflect objectives of preschool

6. training of examiners

7. humane treatment of children

8. economical in time and money

9. ease of administration

10.- others (specify)

Remarks

Appendix D (2) :

Results of Preschool Survey

Purpose:

The purpose of the survey was to review and evaluate the current pre-school screening procedures used by various schools in Lebanon. It also aimed at pinpointing the needs of the pre-school screening system.

Method:

An interview was developed and administered to six major schools representative of the school system in Lebanon. Size of the school, socio-economic level, and educational orientation (American vs French) were taken as main variables in choice of the sample.

Results:

Most of the schools reviewed (83%) did some form of interview or screening test.

The procedure used ranged between a highly standardized administration (40%), a structured intreview (40%), or an informal interview (20%).

The procedures used were either completely adapted (20%), or completely developed by school itself (40%), or a combination of adaptation and development (40%).

Dial - R (40%), Binet-Gisell (20%), and developmental specialists (40%) were the basis of the screening procedures.

Around (60%) of the schools did the screening between the second half of April and the beginning of June. A September retesting is done for some who do not co-operate in April and if there are any vacancies.

Around 80% of the procedures had been in use for more than 5 years. They involved individualized administration which required 15 mins or less in 60% of the cases.

In general, the purpose of the screening was to detect if the child 'understands' 'can talk' 'if he can function in school' and if he has proper co-ordination.

Assessment of developmental maturity was cited by 40% of the schools as the target, readiness for nursery by another 40%, while 20% look for a minimum of average intelligence. These were assessed because they were important for future school performance.

Specifically all the schools tried to measure motoric skills, 80% included language, and 50% tested concept formation.

Marking was done by either supervisor (60%) or by trained examiners (40%) during administration (60%

of time) or after it (40% of time). The grading criteria was subjective (60%) and a combination of subjective and objective (40%). The latter group filled a behavioral observation form in addition to the score sheet.

Results were not conveyed to parents unless there was a problem. In addition no future use was made of the results.

On evaluating the present procedures we note the following results:

Quality of Test	% of Schools
1. Fair	40
2. Economical in time & material	70
3. Fulfills its functions	80
4. Not culturally biased	70
5. Need improvement	100
6. Easy to administer	70
7. Objective	40
8. Need training	100

On their views with respect to what an ideal procedure should involve, we note the following:

Quality of Test	% of Schools
1. Cultural adaptation	60
2. Objectivity	60
3. Reflect pre-school objectives	60
4. Economical & easy to adminster	100
5. Trained people	100
6. Treat children humanely	100
7. Norming and standardization	40
8. Good psychometric properties	40

Conclusion

The above results lead us to the following conclusions of the status of pre-school screening procedures as used by various schools in Lebanon:

Presently none of the schools, even those using standardized procedures, have normed or standardized their tests and thus are applying foreign norms or standards on Lebanese child. Objectivity in scoring is

practiced by only 40% of the schools and even then it is supplemented with subjective criteria.

Cultural adaptation was not seen as an important issue as developmental trends are universal. However the construction of items should involve material that is familiar to the Lebanese child.

All the schools agree on the need for improvement of the present practices. However, these changes or improvements as well as any procedure used should assure the humane and fair treatment of children. As a result of the above, we need to develop a screening procedure that ensures fairness to children at the same time improves on present practices by reflecting pre-school objectives, by being more objective, standardized on Lebanese population, economical and easy to administer, and finally culturally adapted.

APPENDIX E :

Tabulated Data

The VARIABLES are listed in the following order:

Line 1: ID SEX AGE SEL ITM-1 ITM-2 ITM-3 SCALE1 ITM-4 ITM-5 ITM-6
SCALE2BB ITM-7 ITM-8 ITM-9 SCALE2PZ SCALE2 ITM-10 ITM-11 ITM-12
ITM-13 ITM-14 ITM-15 ITM-16 ITM-17 ITM-18 ITM-19 ITM-20
SCALE3 SCALE6 ITM-38 ITM-39 ITM-40

Line 2: ITM-41 ITM-42 SCALE7 ITM-43 ITM-44 ITM-45 ITM-46 ITM-47
ITM-48 ITM-49 LC-WALK ITM-50 ITM-51 ITM-52 ITM-53 ITM-54
ITM-55 LC-SHS ITM-56 ITM-57 ITM-58 ITM-59 ITM-60 ITM-61 LC-BD
SCALE8 ITM-62 ITM-63 ITM-64 ITM-65 HE-BALL ITM-66 ITM-67
ITM-68

Line 3: ITM-69 HE-DRAW ITM-70 ITM-71 ITM-72 ITM-73 HE-CF SCALE9 ITM-74
ITM-75 ITM-76 ITM-77 ITM-78 ITM-79 ITM-80 ITM-81 ITM-82
ITM-83 ITM-84 ITM-85 IONAM ITM-86 ITM-87 ITM-88 ITM-89 ITM-90
ITM-91 ITM-92 ITM-93 IOBYUSE ITM-94 ITM-95 ITM-96 ITM-97

Line 4: ITM-98 ITM-99 ITM-100 ITM-101 IOBYNAM SCALE10 ITM-102 ITM-103
ITM-104 SCALE11 ITM-105 ITM-106 ITM-107 ITM-108 ITM-109
ITM-110 SCALE12 ITM-111 ITM-112 ITM-113 ITM-114 SCALE13 ITM-115
ITM-116 ITM-117 ITM-118 ITM-119 ITM-120 SCALE14 ITM-121
ITM-122 SCALE15 ITM-21

Line 5: ITM-22 ITM-23 ITM-24 SCALE4 ITM-25 ITM-26 ITM-27 ITM-28
ITM-29 ITM-30 ITM-31 ITM-32 ITM-33 SCALE5 ME C L MO R

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    ID:   1 2 4 3 1 1 1 3 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 0 1 1 1 10 3 1 1 0
ITM-41: 0 0 2 2 1 2 2 1 1 0  9 1 0 0 1 0 0 2 1 1 1 1 0 0 4 15 1 0 0 0 1 1 1 1
ITM-69: 1 4 1 1 1 1 4  9 0 1 1 1 1 1 0 0 1 1 1 1  9 1 1 0 0 1 1 1 0 5 1 1 1 1
ITM-98: 1 1 0 1 7 21 1 1 1 3 2 0 2 0 0 2  6 2 3 1 1  7 3 3 2 1 3 1 13 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 0 1 1 1 1 1  18  18  47  47  31 143

    ID:   2 2 5 3 1 1 0 2 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 2 2 14 1 1 1 1 1 3 8 1 1 1 1 1 1 6 28 1 0 0 1 2 1 0 1
ITM-69: 1 3 1 0 1 1 3  8 0 1 1 1 1 1 1 1 1 1 1 11 1 1 1 1 1 1 0 1 7 1 1 1 1
ITM-98: 1 0 0 1 6 24 1 1 1 3 2 2 2 2 1 0  9 4 2 2 2 10 2 3 3 3 3 2 16 1 0 1 3
ITM-22: 3  3  12  21   4   4 1 0 0 1 0 1 0  11  20  40  56  46 162

    ID:   3 1 4 3 1 1 0 2 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 0
ITM-41: 0 1 3 2 2 2 2 2 2 1 13 1 1 1 1 1 2 7 1 1 1 1 1 1 6 26 1 1 1 1 4 1 1 1
ITM-69: 1 4 1 1 1 1 4 12 1 1 1 1 0 1 1 0 1 1 1 1 10 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 0 0 1 6 24 0 1 1 2 2 0 0 2 2 0  6 6 2 3 4 15 2 2 3 0 0 3 10 1 0 1 3
ITM-22: 3  6  12  24   4   8 0 0 1 1 0 1 1  16  13  47  58  48 166

    ID:   4 1 4 3 1 1 0 2 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 1 0 0  9 1 1 1 0 0 0 3 1 1 1 1 0 0 4 16 0 0 0 1 1 0 0 1
ITM-69: 1 2 1 1 1 1 4  7 1 1 1 0 1 1 1 1 1 1 0 1 10 1 1 0 0 1 0 0 0 3 1 1 1 1
ITM-98: 0 1 0 1 6 19 1 0 0 1 2 2 2 2 2 2 12 3 1 1 2  7 1 2 3 2 3 0 11 1 1 2 3
ITM-22: 3  2   0   8   4   8 1 1 1 1 1 1 1  19  14  36  51  33 134

    ID:   5 1 5 3 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 0
ITM-41: 1 1 4 2 2 2 2 2 1 0 11 1 1 1 1 0 0 4 1 1 1 1 0 1 5 20 0 0 0 0 0 1 1 1
ITM-69: 1 4 1 1 1 1 4  8 1 1 0 1 1 1 1 1 1 1 0 0  9 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 0 1 1 7 24 0 0 1 1 2 2 2 2 2 0 10 4 2 2 4 12 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 0 1 1 1 1 1  18  23  50  59  35 167

    ID:   6 2 4 3 1 0 1 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 0 1 1 1 10 1 1 1 0
ITM-41: 0 0 2 2 2 2 2 1 0 0  9 1 0 0 1 1 2 5 1 1 1 1 0 0 4 18 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 0 1 1 3  9 1 0 1 1 1 0 1 1 1 1 1 1 10 1 1 0 0 1 1 1 0 5 1 1 0 1
ITM-98: 1 1 0 1 6 21 0 1 0 1 2 2 2 0 0 0  6 3 1 2 1  7 3 3 3 3 4 3 19 1 0 1 3
ITM-22: 3  6   9  21   4   8 1 1 1 1 1 1 1  19  21  43  46  35 145
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ITM-41: 0 1 4 2 2 2 2 1 2 0 11 1 1 1 0 0 0 3 1 1 1 1 1 1 6 20 0 0 0 0 0 1 1 1
ITM-69: 1 4 1 1 1 1 4  8 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 1 0 1 1 1 1 6 1 1 1 1
ITM-98: 1 0 1 1 7 25 1 1 1 3 2 2 2 2 2 0 10 2 3 1 5 11 3 3 3 3 4 2 18 1 1 2 3
ITM-22: 3  5  10  21  3  8 1 1 1 1 1 1 1  18  23  46  60  36 165

   ID:  14 1 4 3 1 1 1 3 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 1 2 2 2 0 0  9 1 1 0 1 1 0 4 1 1 1 1 0 1 5 18 1 0 0 1 2 1 1 0
ITM-69: 1 3 1 1 1 1 4  9 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 1 1 0 1 1 1 6 1 1 1 1
ITM-98: 1 1 0 1 7 28 1 1 1 3 2 2 2 2 1 2 11 6 2 4 3 15 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  11  23  4  8 1 1 1 1 1 1 1  19  25  50  68  34 177

   ID:  15 1 5 3 1 1 0 2 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 2 2 14 1 1 1 1 1 3 8 1 1 1 1 1 1 6 28 1 0 0 1 2 1 1 0
ITM-69: 1 3 1 1 1 1 4  9 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 28 1 1 0 2 0 2 2 1 2 2  9 2 1 1 3  7 3 3 3 3 4 3 19 1 1 2 3
ITM-22: 3  6  12  24  4  8 1 1 1 1 1 1 1  19  23  51  57  48 179

   ID:  16 2 5 3 1 1 1 3 3 2 1 6 1 2 4 7 13 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 2 2 14 1 1 1 1 1 3 8 1 1 1 1 1 1 6 28 1 1 1 1 4 1 1 1
ITM-69: 1 4 1 0 1 1 3 11 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 0 1 1 1 1 7 1 1 1 1
ITM-98: 1 0 0 1 6 25 0 0 0 0 2 2 2 0 2 0  8 6 5 2 5 18 3 3 3 3 4 0 16 1 1 2 3
ITM-22: 3 -5  12  13  4  8 1 0 1 1 1 1 1  18  18  38  65  52 173

   ID:  17 1 4 3 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 1 0 11 1 0 1 0 0 0 2 1 1 1 1 0 0 4 17 0 0 0 0 0 1 1 1
ITM-69: 1 4 1 1 1 1 4  8 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 0 1 0 1 1 6 1 1 1 1
ITM-98: 1 0 0 1 6 24 1 1 1 3 2 2 2 2 2 2 12 1 0 0 2  3 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  9  21  4  8 1 0 1 1 1 1 1  18  25  48  52  33 158

   ID:  18 1 4 3 1 1 0 2 3 0 1 4 0 0 0 0  4 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 2 1 2 2 2 0 0  9 1 0 0 0 1 2 4 1 1 1 1 0 0 4 17 1 1 0 1 3 0 0 0
ITM-69: 0 0 1 0 0 0 1  4 1 1 1 1 1 1 1 1 1 1 1 1 1 12 0 0 1 0 0 0 1 1 3 1 1 1 1
ITM-98: 1 0 1 1 7 22 1 1 0 2 2 2 2 2 0 0  8 2 0 4 4 10 2 3 1 0 0 0  6 0 0 0 3
ITM-22: 3  6  9  21  4  0 1 0 0 0 0 0 0  5  8  32  53  25 118

   ID:  19 2 5 3 1 1 0 2 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 2 2 14 1 1 1 1 1 0 5 1 1 1 0 0 0 3 22 1 0 0 1 2 1 1 1
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ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 0 0 1 6 26 1 0 1 2 2 2 2 2 2 0 10 4 0 2 4 10 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  11  23  4  0 1 0 1 1 0 1 1  9  24  39  59  43 165

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ITM-69: 1 4 0 0 1 1 2  8 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 0 1 1 7 27 1 1 1 3 2 2 2 2 2 2 12 4 1 1 1  7 3 3 3 3 3 4 19 1 1 2 3
ITM-22: 3  6  12  24  4  8 1 1 1 0 1 1 1  18  24  49  59  40 172

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ITM-69: 1 4 1 1 1 1 4  9 1 1 1 1 1 1 1 1 1 1 1 21 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 0 1 1 7 27 1 1 1 3 1 2 2 2 2 2 11 4 5 4 5 18 3 3 3 3 3 4 19 1 1 2 3
ITM-22: 3  6  11  23  4  8 1 0 1 1 1 1 1  18  24  48  70  43 185

    ID:  22 1 4 3 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
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ITM-69: 1 4 1 0 1 1 3  7 1 1 1 1 0 0 1 0 1 1 1 1  9 1 0 0 1 1 0 1 1 5 1 1 1 1
ITM-98: 1 0 0 1 6 20 1 0 1 2 1 1 2 0 2 0  6 3 3 2 1  9 3 3 3 3 3 2 17 1 1 2 3
ITM-22: 3  6  12  24  4  6 1 0 1 1 0 0 1  14  21  44  48  36 149

    ID:  23 1 4 3 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
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ITM-69: 1 3 0 0 1 1 2  7 1 1 1 1 1 1 1 1 1 1 1 12 1 0 1 0 1 1 1 1 6 1 1 1 1
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ITM-22: 3  6  11  23  4  8 1 1 1 1 1 1 1  19  18  49  57  36 160

    ID:  24 2 4 3 1 1 1 3 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
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ITM-69: 1 3 1 1 1 1 4  8 1 1 1 1 1 1 1 0 1 1 1 1 11 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 0 1 7 26 1 1 1 3 2 2 2 1 2 2 11 5 5 2 2 14 3 3 2 3 4 3 18 1 1 2 3
ITM-22: 3  6  12  24  4  8 1 0 1 0 0 1 1  16  23  45  65  37 170

    ID:  25 1 4 3 1 1 1 3 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
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ITM-69: 1 4 1 1 1 1 4 11 1 1 1 1 1 1 0 1 1 0 1 0  9 1 0 1 0 1 0 1 1 5 1 1 1 1
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    ID:  26 1 4 3 1 1 1 3 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
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ITM-69: 1 3 0 0 1 1 2  6 1 1 1 1 0 1 1 1 1 0 1 1 10 1 0 0 0 1 0 1 1 4 1 1 1 1
ITM-98: 0 0 0 1 6 20 0 0 0 0 2 2 2 2 2 2 12 3 1 1 1  6 3 3 3 3 2 0 14 1 1 2 3
ITM-22: 3  6  11  23  -6   0 0 0 0 0 0 0 0  -6  16  26  52  36 130

    ID:  27 2 4 3 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 1 2 2 2 1 1 11 1 1 1 0 1 0 4 1 1 0 0 0 0 2 17 0 0 0 1 1 1 1 0
ITM-69: 1 3 1 1 1 1 4  8 1 1 1 1 1 1 1 1 1 0 0 1 11 1 1 0 1 1 1 1 1 7 1 1 1 1
ITM-98: 0 0 0 1 5 23 1 1 1 3 2 2 2 0 2 2 10 3 4 3 2 12 3 3 3 3 4 2 18 1 1 2 3
ITM-22: 3  6   9  21   4   8 1 1 1 1 1 1 1  19  23  48  58  33 162

    ID:  28 2 4 3 1 1 1 3 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 1 1 2 2 1 1 10 1 1 1 0 1 1 5 1 1 1 1 1 1 6 21 1 1 1 1 4 1 1 1
ITM-69: 0 3 1 1 1 0 3 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 0 0 1 6 26 1 0 0 1 2 2 2 2 2 2 12 2 3 4 5 14 3 3 3 3 2 4 18 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 0 0 1  17  21  49  66  38 174

    ID:  29 1 5 3 1 1 0 2 3 2 2 7 1 2 2 5 12 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 2 1 13 1 1 1 0 1 0 4 1 1 1 0 0 0 3 20 1 1 0 0 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 1 0 1 6 1 1 1 1
ITM-98: 1 0 0 1 6 12 0 0 0 0 2 2 2 0 1 2  9 5 3 3 2 13 3 2 2 3 4 3 17 1 1 2 3
ITM-22: 3  5  10  21   4   4 1 0 1 0 0 1 1  12  19  41  47  42 149

    ID:  30 2 5 3 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
ITM-41: 1 1 4 2 1 1 2 0 0 0  6 1 0 1 0 0 0 2 1 1 1 0 0 0 3 11 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 0 1 1 3  9 0 1 0 1 0 1 1 1 1 1 1 1  9 1 1 0 0 0 1 1 1 5 1 1 0 1
ITM-98: 0 0 1 1 5 19 1 0 0 1 2 0 2 2 2 0  8 2 2 1 3  8 3 3 2 3 3 2 16 1 0 1 3
ITM-22: 3  6 -17  -5   4   8 1 0 0 1 0 1 0  15  18  16  48  27 109

    ID:  31 2 5 3 1 1 0 2 3 2 0 5 1 2 2 5 10 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 0
ITM-41: 1 1 4 2 2 2 2 2 2 2 14 1 1 1 1 1 3 8 1 1 1 1 1 1 6 28 1 1 0 1 3 1 1 1
ITM-69: 1 4 1 0 1 1 3 10 0 1 1 1 1 1 1 1 1 1 1 1 11 1 0 0 1 1 1 1 1 6 1 1 1 1
ITM-98: 1 0 1 1 7 24 1 1 1 3 2 2 2 2 2 0 10 3 2 2 4 11 3 3 3 3 4 3 19 1 1 2 3
```

```
ITM-22: 3  6  11  23  4  8 1 0 1 1 1 1 1  18  24  49  58  48 179

    ID:  32 1 5 3 1 1 0 2 3 2 2 7 1 2 2 5 12 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 1 2 1 12 1 1 1 1 1 0 5 1 1 1 1 1 0 5 22 1 1 0 1 3 1 1 1
ITM-69: 1 4 1 1 1 1 4 11 1 1 1 1 1 1 1 1 1 0 1 1 11 1 0 1 0 1 1 1 1 6 1 1 1 1
ITM-98: 1 1 1 1 8 25 1 1 1 3 2 2 2 2 2 0 10 2 2 2 3  9 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  9  21  4  8 1 0 1 1 1 1 1  18  25  48  57  45 175

    ID:  33 2 5 3 1 1 0 2 3 2 2 7 1 2 2 5 12 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 1 1 2 1 1 0  8 1 0 0 0 1 0 2 1 1 1 1 1 0 5 15 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 0 1 1 1 1 1 1 11 1 0 0 1 1 1 1 1 6 1 1 1 1
ITM-98: 1 0 1 1 7 24 1 1 1 3 0 0 0 0 0 0  0 4 2 2 4 12 3 2 3 3 4 2 17 1 1 2 3
ITM-22: 3  6  11  23  4  8 1 0 1 1 1 1 1  18  22  49  49  37 157

    ID:  34 1 2 3 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 0 1 1 1 10 3 1 1 0
ITM-41: 0 1 3 2 1 1 2 1 0 0  7 1 1 1 0 0 0 3 1 1 0 0 0 0 2 12 1 0 0 0 1 1 1 1
ITM-69: 0 3 0 0 1 0 1  5 1 1 1 0 0 0 1 1 1 1 1 1  9 1 1 1 1 1 0 1 1 7 1 1 1 1
ITM-98: 1 1 0 0 6 22 1 1 1 3 2 2 0 2 0 2  8 3 1 1 1  6 3 3 3 3 3 3 18 1 1 2 3
ITM-22: 3  6  12  24  4  8 1 0 0 0 0 0 1  14  23  44  48  24 139

    ID:  35 1 2 3 1 1 0 2 0 2 2 4 1 2 1 4  8 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 0
ITM-41: 0 0 2 2 1 0 2 1 0 0  6 1 0 1 0 0 0 2 1 1 1 0 0 0 3 11 1 0 0 0 1 1 1 1
ITM-69: 0 3 1 1 0 0 2  6 0 1 1 0 1 1 1 1 1 1 1 1 10 0 0 1 0 1 1 1 1 5 1 1 1 1
ITM-98: 1 1 0 1 7 22 1 1 0 2 2 0 0 2 2 0  6 2 3 1 1  7 2 0 0 0 0 0  2 1 0 1 3
ITM-22: 3  6  6  18  4  8 1 1 1 1 1 1 1  19  5  40  48  25 118

    ID:  36 2 3 3 1 1 1 3 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 2 1 2 2 2 0 0  9 1 1 1 0 1 0 4 1 1 1 1 1 0 5 18 0 0 0 0 0 1 0 0
ITM-69: 0 1 0 0 1 1 2  3 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 0 1 7 0 1 1 1
ITM-98: 1 0 1 1 6 25 1 1 1 3 1 1 1 1 2 0  6 4 2 0 1  7 3 3 3 3 3 3 18 1 1 2 3
ITM-22: 3  6  12  24  4  8 1 1 1 1 0 1 1  18  23  48  52  31 154

    ID:  37 2 3 3 1 1 1 3 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 2 2 2 2 1 2 2 13 1 1 1 0 0 0 3 1 1 1 1 0 0 4 20 1 0 0 1 2 1 1 1
ITM-69: 1 4 0 0 1 1 2  8 1 0 1 1 1 1 1 1 1 1 1 1 11 0 0 1 1 1 0 1 0 4 1 1 1 1
ITM-98: 1 0 0 1 6 21 0 0 0 0 2 2 0 2 1 2  9 5 1 2 4 12 3 3 3 3 4 3 19 1 1 2 3
ITM-22: 3  6  11  23  4  8 1 0 1 1 1 1 1  18  21  47  56  35 159
```

```
    ID:  38 2 3 3 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 2 1 2 2 2 1 0 10 1 1 1 1 0 0 4 1 0 0 0 0 0 1 15 1 0 0 1 2 1 0 1
ITM-69: 1 3 1 1 1 1 4  9 1 0 1 1 1 1 0 0 1 1 1 1  9 1 1 0 1 1 0 1 0 5 1 1 1 0
ITM-98: 1 0 0 0 4 18 1 0 1 2 2 2 1 2 0 0  7 4 0 1 4  9 3 3 2 3 4 4 19 1 1 2 3
ITM-22: 3  6   9  21   4  -4 0 0 0 0 0 0 0   0  23  27  47  32 129

    ID:  39 1 3 3 1 1 1 3 3 2 2 7 1 1 2 4 11 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 1 2 2 2 0 0  9 1 1 1 0 0 0 3 1 1 1 1 1 0 5 17 1 1 1 1 4 0 0 1
ITM-69: 1 2 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 0 1 7 27 1 1 1 3 2 2 2 2 2 0 10 3 2 1 2  8 2 3 3 3 3 0 14 1 1 2 3
ITM-22: 3  6  11  23   4   4 1 0 1 1 1 1 1  14  19  46  59  38 162

    ID:  40 1 3 3 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 1
ITM-41: 1 1 5 1 0 0 2 2 0 0  5 1 1 1 0 0 0 3 1 1 1 0 1 0 4 12 1 0 0 1 2 0 0 1
ITM-69: 1 2 1 1 1 1 4  8 0 0 1 0 1 1 0 1 0 0 0 1  5 1 0 0 1 1 1 1 1 6 1 0 0 0
ITM-98: 0 0 0 0 1 12 0 1 1 2 0 2 0 0 2 0  4 2 2 1 1  6 3 3 3 3 4 3 19 1 1 2 3
ITM-22: 3  6  12  24   2  -4 1 0 0 0 0 0 0  -1  23  29  35  27 114

    ID:  41 1 2 3 0 1 0 1 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 1 1 2 2 1 0 0  7 1 0 1 0 0 0 2 1 1 0 0 0 0 2 11 1 0 0 0 1 0 0 1
ITM-69: 0 1 1 0 1 1 3  5 1 1 0 0 1 1 1 0 1 0 1 1  8 1 1 0 1 1 0 1 1 6 0 1 1 1
ITM-98: 1 0 0 1 5 19 1 1 0 2 2 2 2 0 2 0  8 3 0 1 0  4 3 3 2 3 4 0 15 1 0 1 3
ITM-22: 3  6  11  23   4   4 1 0 0 0 0 0 0   9  18  38  43  23 122

    ID:  42 2 3 3 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 1 2 1 0 0  8 1 0 1 0 0 0 2 1 1 1 0 0 0 3 13 1 0 0 0 1 0 0 1
ITM-69: 1 2 0 0 1 1 2  5 1 1 1 1 1 1 1 1 1 0 1 1 11 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 0 0 0 0 4 23 0 1 0 1 2 2 2 2 2 2 12 3 1 3 2  9 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  11  23   4   8 1 0 0 0 0 1 0  14  23  46  57  25 151

    ID:  43 2 3 3 1 1 1 3 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 1 1 5 2 1 0 2 2 1 0  8 1 1 1 1 0 2 6 1 1 1 1 0 0 4 18 1 0 0 0 1 0 1 0
ITM-69: 1 2 0 0 1 1 2  5 1 1 1 0 1 1 1 1 1 1 1 1 11 1 0 1 1 1 1 1 1 7 0 1 1 1
ITM-98: 0 0 0 1 4 22 0 1 1 2 2 2 1 0 2 0  7 3 2 2 2  9 3 3 3 1 3 0 13 1 1 2 3
ITM-22: 3  6  10  22   4   8 1 0 1 0 0 1 1  16  17  45  52  30 144
```

```
    ID:  44 1 3 3 1 1 1 3 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 0 2 2 1 2 2 1 1 1 10 1 1 1 0 1 2 6 1 1 1 0 0 0 3 19 1 1 1 1 4 0 1 1
ITM-69: 1 3 0 0 1 0 1  8 1 0 0 1 1 1 1 0 1 1 1 1  9 1 0 0 1 1 1 1 1 6 1 1 1 1
ITM-98: 1 0 1 1 7 22 1 1 1 3 1 1 2 2 0 0  6 1 0 1 2  4 3 3 3 3 4 3 19 1 1 2 3
ITM-22: 3  6  12  24  -4   4 1 0 0 1 0 1 0   3  24  32  46  34 136

    ID:  45 1 3 3 1 1 0 2 3 2 2 7 1 0 0 1  8 0 1 1 1 1 1 1 0 1 1 1  9 2 1 1 0
ITM-41: 0 1 3 2 1 1 2 2 0 0  8 1 0 0 0 0 0 1 1 1 1 0 0 0 3 12 1 0 0 0 1 0 1 0
ITM-69: 1 2 1 0 1 1 3  6 1 1 0 1 1 1 0 1 1 0 1 1  9 1 1 1 1 0 0 0 0 4 1 1 1 1
ITM-98: 1 0 0 1 6 19 1 1 1 3 0 0 0 0 0 0  0 2 1 1 1  5 2 0 0 1 2 1  6 0 0 0 3
ITM-22: 3  6  11  23   4   0 1 0 1 1 1 1 0   9   9  37  35  26 107

    ID:  46 1 3 3 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 2 1 0 2 2 0 0  7 1 1 1 0 1 0 4 1 1 0 0 0 0 2 13 1 1 0 0 2 1 1 1
ITM-69: 1 4 0 0 1 1 2  8 0 1 1 0 0 1 1 0 1 0 1 1  7 0 0 1 1 1 1 0 0 4 0 1 1 1
ITM-98: 1 0 1 0 5 16 1 0 0 1 2 2 2 2 1 0  9 2 5 2 1 10 0 2 2 0 1 0  5 1 1 2 0
ITM-22: 0  6   6  12   3  -4 1 0 0 0 0 0 0   0   8  18  48  28 102

    ID:  47 2 3 3 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 1 1 0 2 0 0 0  4 1 0 0 0 0 0 1 1 1 0 0 0 0 2  7 1 0 1 0 2 1 1 0
ITM-69: 1 3 1 1 1 1 4  9 1 1 0 1 0 1 0 1 1 0 1 1  8 1 1 1 1 1 0 1 0 6 1 1 1 1
ITM-98: 1 0 0 1 6 20 0 1 0 1 2 2 1 0 2 0  7 2 1 3 3  9 3 2 3 3 3 2 16 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 0 1 1 1 1 1  18  19  48  49  23 139

    ID:  48 1 3 3 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 1 0 11 1 1 1 1 1 0 5 1 1 1 1 1 0 5 21 1 0 0 0 1 1 1 1
ITM-69: 1 4 1 1 1 1 4  9 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 0 1 0 1 1 6 1 1 1 1
ITM-98: 1 1 1 1 8 26 1 1 1 3 2 0 2 2 2 2 10 2 3 2 3 10 3 3 3 3 4 0 16 1 1 2 3
ITM-22: 3  6  11  23   4   8 1 0 1 0 0 1 1  16  21  46  59  37 163

    ID:  49 2 3 3 1 1 1 3 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 2 2 2 2 2 2 0 12 1 1 1 0 0 0 3 1 1 1 1 0 0 4 19 1 0 0 0 1 1 1 1
ITM-69: 1 4 1 0 1 1 3  8 1 1 1 1 0 1 1 0 1 0 1 1  9 0 0 0 1 1 1 1 0 4 1 1 1 1
ITM-98: 1 1 1 1 8 21 0 0 0 0 2 2 0 0 1 0  5 1 1 2 0  4 3 3 2 3 1 1 13 1 1 2 3
ITM-22: 3 -2  -4   0   4   8 1 0 1 1 1 1 1  18  15  24  44  34 117

    ID:  50 2 2 3 1 1 1 3 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
```

```
ITM-41: 0 1 4 2 2 2 2 1 2 0 11 1 1 1 0 0 0 3 1 1 1 0 0 0 3 17 0 0 0 0 0 0 1 1
ITM-69: 1 3 0 0 1 1 2  5 1 1 1 1 1 1 1 1 1 0 1 1 11 1 0 0 1 1 0 1 1 5 1 1 1 1
ITM-98: 1 0 0 1 6 22 1 1 1 3 2 2 2 2 2 2 12 3 2 2 3 10 3 3 3 3 3 2 17 1 0 1 3
ITM-22: 3  6  12  24  4  8 1 0 1 1 0 1 1  17  21  48  58  29 156

    ID:  51 1 2 3 1 1 0 2 3 2 1 7 0 0 0 0  6 1 1 1 1 1 1 1 0 1 1 1 10 3 1 1 0
ITM-41: 0 1 3 2 1 0 2 1 0 0  6 1 0 1 0 0 0 2 1 1 1 1 1 0 5 13 1 0 0 0 1 1 0 0
ITM-69: 0 1 1 0 1 1 3  5 1 1 1 1 0 0 1 0 1 1 1 1  9 1 0 0 1 1 1 1 0 5 1 1 1 1
ITM-98: 1 0 0 1 2 16 0 1 0 1 2 2 2 2 0 0  8 2 2 1 1  6 2 2 2 0 1 2  9 0 0 0 3
ITM-22: 3  4  -3  7  4  6 1 0 1 1 1 0 1  15  10  28  42  24 104

    ID:  52 2 2 3 1 1 0 2 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 1
ITM-41: 0 0 3 2 2 2 2 1 0 0  9 1 1 1 0 0 0 3 1 1 1 1 0 0 4 16 1 1 0 0 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 0 1 1 1 1 0 5 1 1 1 1
ITM-98: 1 0 0 1 6 23 0 1 1 2 2 2 2 0 2 0  8 2 0 2 1  5 2 3 1 3 4 3 16 1 0 1 3
ITM-22: 3  6  12  24  4  2 0 0 0 0 0 0 0  6  19  34  49  36 138

    ID:  53 1 2 3 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 0 1 1 0
ITM-41: 0 0 2 1 1 1 2 2 0 0  7 1 1 1 0 0 0 3 1 1 0 0 0 0 2 12 1 0 0 0 1 1 0 0
ITM-69: 0 1 0 0 0 0 0  2 0 0 1 0 0 0 1 0 1 1 1 1  6 1 0 0 1 1 0 1 0 4 0 0 1 1
ITM-98: 0 0 1 1 4 14 1 0 0 1 2 0 0 0 2 0  4 3 0 1 0  4 3 2 3 3 2 2 15 1 1 2 3
ITM-22: 3  6  4  16  4  6 1 0 0 0 0 0 0  11  18  29  35  21 103

    ID:  54 1 2 3 0 0 0 0 3 2 0 5 1 0 0 1  6 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 2 2 2 0 2 1 1 10 1 1 1 0 0 0 3 1 1 1 1 0 0 4 17 1 0 0 1 2 1 0 0
ITM-69: 1 2 0 0 1 0 1  5 1 0 1 1 0 1 0 0 1 0 1 0  6 0 0 0 0 0 1 1 0 2 0 1 0 1
ITM-98: 1 0 0 1 4 12 0 0 0 0 0 0 0 0 0 0  0 2 1 0 3  6 1 1 1 0 1 0  4 0 0 0 3
ITM-22: 3  4  8  18  3  0 0 0 0 0 0 0 0  3  4  27  29  28  88

    ID:  55 2 2 3 1 0 0 1 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 1 0 3 1 1 0 2 1 0 0  5 1 0 1 0 0 0 2 1 1 0 0 0 0 2  9 0 0 0 0 0 1 0 1
ITM-69: 0 2 0 0 1 1 2  4 1 0 1 1 0 1 1 0 1 1 1 1  9 1 1 0 0 1 1 0 1 5 1 1 1 1
ITM-98: 1 0 0 0 5 19 1 0 0 1 2 2 2 2 2 0 10 2 0 0 1  3 3 3 2 3 2 2 15 1 0 1 3
ITM-22: 3  6  8  20  40  81 0 1 1 1 0 0 0  16  17  42  44  20 123

    ID:  56 1 1 3 1 0 0 1 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 0 1 4 2 1 2 2 0 0 0  7 1 0 1 0 0 0 2 1 1 1 1 0 0 4 13 0 0 0 0 0 0 0 0
```

```
ITM-69: 0 0 0 0 1 0 1  1 1 1 1 1 0 1 1 0 1 0 1 1  9 1 1 1 1 1 0 0 1 6 1 1 1 1
ITM-98: 1 0 0 1 6 21 0 0 1 1 2 2 0 0 2 0  6 3 0 1 2  6 2 1 0 1 0 0  4 1 0 1 3
ITM-22: 3  0   0   6   4   8 1 0 0 0 0 1 1  15   6  28  45  19  98

    ID:  57 1 3 3 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 0 1 1 1 10 2 1 1 0
ITM-41: 0 1 3 2 2 1 2 1 0 0  8 1 1 1 0 0 0 3 1 1 0 0 0 0 2 13 0 0 0 0 0 1 1 1
ITM-69: 1 4 1 0 1 1 3  7 1 1 1 1 1 0 0 0 1 1 1 1  9 1 0 1 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 0 0 1 6 22 0 0 1 1 2 2 0 0 2 0  6 3 0 1 2  6 2 1 1 2 0 0  6 0 0 0 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19   7  48  46  27 128

    ID:  58 2 3 3 1 1 1 3 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 2 1 2 2 2 0 0  9 1 1 1 1 0 3 7 1 1 1 0 1 0 4 20 1 1 0 0 2 1 1 1
ITM-69: 1 4 1 0 1 1 3  9 1 1 1 1 1 1 0 1 1 1 1 0 10 1 1 0 0 1 1 1 1 6 1 0 1 1
ITM-98: 1 0 0 1 5 21 1 0 1 2 0 2 2 2 2 0  8 3 1 1 1  6 3 3 3 3 4 3 19 1 0 1 3
ITM-22: 3  6   8  20   3   6 1 0 1 1 1 1 1  15  22  41  49  37 149

    ID:  59 1 2 3 1 1 0 2 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 1 1 1 1 11 1 0 1 0
ITM-41: 0 0 1 1 1 1 2 1 0 0  6 1 1 1 0 0 0 3 1 1 1 1 1 0 5 14 0 0 0 0 0 0 1 0
ITM-69: 0 1 0 0 0 0 0  1 1 0 1 0 0 1 0 1 1 1 1 0 71 0 0 0 1 1 1 0 4 1 1 1 1 1
ITM-98: 0 0 1 6 2 11 1 1 1 3 2 2 2 2 2 2 12 1 1 2 1  5 3 2 3 3 0 0 11 1 0 1 3
ITM-22: 3  6  11  23   4   4 1 0 0 0 0 1 1  11  15  36  41  20 112

    ID:  60 2 2 3 1 1 0 2 3 2 2 7 0 2 2 4 11 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 2 1 13 1 0 1 1 0 2 5 1 1 0 0 0 0 2 20 1 0 0 1 2 1 0 1
ITM-69: 1 3 0 0 1 1 2  7 1 1 1 0 1 1 1 0 1 1 1 1 10 1 0 0 1 1 0 1 1 5 1 1 1 1
ITM-98: 1 0 0 1 6 21 0 1 1 2 2 2 2 2 2 2 12 4 1 1 1  7 3 3 3 2 2 2 15 1 1 2 3
ITM-22: 3  6  12  24   4   6 1 0 1 0 1 1 1  15  19  45  53  38 155

    ID:  61 2 2 3 1 1 0 2 3 0 0 3 0 0 0 0  3 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 1
ITM-41: 0 1 4 1 1 0 2 1 0 0  5 1 0 1 0 0 0 2 0 0 0 0 0 0 0  7 0 0 0 0 0 0 0 0
ITM-69: 0 0 0 0 1 1 2  2 0 0 0 0 0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0 0 0 1 1 1 0
ITM-98: 1 0 0 0 4  4 0 0 1 1 0 0 0 2 0 0  2 0 0 0 0  0 0 0 0 0 0 0  0 0 0 0 3
ITM-22: 3  0   0   6   4   2 1 0 0 0 0 0 0  7   1  18  19  12  50

    ID:  62 2 1 3 1 1 0 2 3 2 2 7 1 0 1 2  9 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
ITM-41: 0 1 3 2 1 0 2 1 0 0  6 1 0 1 0 0 0 2 1 1 0 0 0 0 2 10 0 0 0 0 0 1 0 0
ITM-69: 0 1 0 0 1 1 2  3 1 1 1 0 1 0 1 0 1 0 1 1  8 1 1 0 1 1 1 1 1 7 1 1 1 1
```

```
ITM-98: 1 1 1 1 8 23 1 1 1 3 2 2 2 2 2 0 10 3 1 2 3  9 2 3 2 3 3 0 13 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 0 1 1 1 1 1  18  18  47  55  22 142

    ID:  63 2 1 3 1 1 0 2 3 1 0 4 0 0 0 0  4 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 1
ITM-41: 1 1 5 2 1 1 1 1 1 0  7 1 0 1 0 0 0 2 1 1 0 0 0 0 2 11 0 0 0 0 0 0 0 1
ITM-69: 1 2 0 0 1 1 2  4 1 1 1 1 1 1 1 1 1 0 1 1 11 1 1 1 1 1 1 1 1 8 0 1 1 1
ITM-98: 1 0 1 1 6 25 0 1 1 2 2 2 2 2 2 0 10 4 2 3 2 11 0 3 2 3 3 2 13 1 0 1 3
ITM-22: 3  6  12  24   4   8 1 0 0 0 0 0 1  14  16  44  59  19 138

    ID:  64 1 1 6 1 1 0 2 3 1 0 4 0 0 0 0  4 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 1 0 1 1 0 0  5 1 0 1 0 0 0 2 1 1 1 0 0 0 3 10 1 0 0 0 1 1 1 1
ITM-69: 0 3 0 0 1 1 2  6 1 1 1 0 1 1 1 0 1 1 1 1 10 1 1 0 1 1 0 0 0 4 1 1 1 1
ITM-98: 1 0 0 1 6 20 1 1 1 3 2 2 2 2 2 2 12 2 0 2 2  6 2 2 3 0 3 3 13 1 0 1 3
ITM-22: 3  6  11  23   4   8 1 0 1 0 0 1 1  16  17  47  51  20 135

    ID:  65 2 1 3 1 1 0 2 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 1 1 0 1 1 0 0  4 0 0 0 0 0 0 0 1 1 0 0 0 0 2  6 0 0 0 0 0 0 0 0
ITM-69: 0 0 0 0 0 0 0 0  0 0 0 0 0 0 0 0 0 1 1 1 1  4 0 1 0 1 1 1 1 1 6 1 1 1 1
ITM-98: 1 0 0 1 6 23 1 1 1 3 2 2 2 2 2 0 10 4 4 2 5 15 2 2 2 2 1 2 11 0 0 0 3
ITM-22: 3  6  12  24   4   8 1 0 1 1 0 0 0  15  14  45  61  17 137

    ID:  66 1 1 3 1 0 0 1 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 0 0 0 2 2 0 0  4 1 0 0 0 0 0 1 0 0 0 0 0 0 0  5 0 0 0 0 0 0 0 1
ITM-69: 0 1 0 0 0 0 0 0  1 0 1 1 1 1 0 0 1 1 0 0 1  7 0 0 0 1 1 0 0 1 3 1 1 0 1
ITM-98: 1 0 0 1 5 15 0 1 1 2 2 0 0 0 0 0  2 2 0 0 1  3 1 2 1 1 2 0  7 0 0 0 0
ITM-22: 3  6  11  20   3  -4 1 0 0 1 1 0 0   2   9  28  32  13  82

    ID:  67 1 2 3 1 1 0 2 3 0 0 3 0 0 0 0  3 1 1 1 1 1 1 1 0 0 1 1  9 4 1 1 0
ITM-41: 0 1 3 2 1 0 2 2 0 0  7 1 1 1 0 0 0 3 1 1 0 0 0 0 2 12 0 0 0 0 0 0 0 1
ITM-69: 0 1 0 0 1 1 2  3 0 1 1 0 1 0 1 0 1 0 1 1  7 0 0 0 1 1 1 0 1 4 0 1 1 1
ITM-98: 1 1 0 0 5 16 1 1 1 3 0 0 0 2 2 0  4 2 2 1 1  6 2 3 2 2 2 3 14 1 1 2 0
ITM-22: 6  6  12  24   4   8 1 0 1 1 1 1 1  18  19  49  37  18 123

    ID:  68 1 1 3 1 1 0 2 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 1 0 1 1 10 2 1 1 0
ITM-41: 0 1 3 2 2 2 2 1 0 0  9 1 0 1 1 0 2 5 1 1 0 0 0 0 2 16 0 0 0 0 0 0 0 0
ITM-69: 0 0 0 0 0 0 0 0  0 0 0 1 1 0 1 0 1 1 0 1 1  7 0 0 0 0 1 1 1 1 4 0 1 1 1
ITM-98: 1 0 0 1 5 16 1 1 0 2 2 2 0 0 2 0  6 3 0 0 3  6 1 1 2 0 0 0  4 0 0 0 3
```

```
ITM-22: 3  0   0   6   2   8 0 0 0 0 0 0 0 0  10   6  21  40  21  88

    ID:  69 2 1 3 1 0 0 1 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 0 1 1 1 10 1 1 1 0
ITM-41: 0 1 3 2 1 2 1 1 0 0  7 1 0 0 0 0 0 0 1 1 1 1 1 1 0 0 4 12 0 0 0 0 0 1 1 1
ITM-69: 0 3 1 0 1 0 2  5 1 1 1 0 1 1 1 0 1 1 1 1 10 1 1 0 0 1 0 1 0 4 1 1 1 1
ITM-98: 1 1 0 1 7 21 1 0 1 2 2 0 0 2 1 0  5 4 1 0 0  5 2 2 2 2 1 2 11 0 0 0 3
ITM-22: 3  3   5  14   4  -4 1 0 0 0 0 0 0  1  13  19  42  24  98

    ID:  70 1 1 3 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
ITM-41: 0 1 3 1 1 1 2 1 0 0  6 1 1 0 0 0 1 3 1 0 0 0 0 0 1 10 0 0 0 0 0 1 1 0
ITM-69: 1 3 1 0 1 1 3  6 0 1 1 1 1 1 1 0 1 1 1 1 10 0 1 0 1 1 1 1 0 5 1 1 1 1
ITM-98: 1 1 0 1 7 22 0 0 1 1 2 2 1 2 2 0  9 3 3 2 1  9 0 1 3 2 1 0  7 1 0 1 3
ITM-22: 3  6   0  12   4   6 1 0 1 1 0 0 0  13   9  30  53  24 116

    ID:  71 2 2 3 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 0
ITM-41: 0 1 3 2 1 1 2 1 1 0  8 1 1 0 0 0 0 2 1 1 0 0 0 0 2 12 0 0 0 0 0 1 0 1
ITM-69: 1 3 0 0 1 1 2  5 1 1 1 0 1 1 1 1 1 0 1 1 10 1 1 1 0 1 0 1 1 6 1 1 1 1
ITM-98: 1 1 1 1 8 24 1 0 1 2 2 2 2 0 2 2 10 2 4 1 2  9 2 0 3 2 0 0  7 0 0 0 3
ITM-22: 3  6  12  24   4   4 1 0 1 0 0 1 1  12   9  43  56  25 133

    ID:  72 2 1 3 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 0 1 0 1  9 1 1 1 0
ITM-41: 0 1 3 1 0 0 2 1 0 0  4 1 0 1 0 0 0 2 1 1 1 0 0 0 3  9 1 0 0 0 1 1 0 1
ITM-69: 0 2 0 0 1 1 2  5 1 0 1 1 1 1 1 1 1 1 1 1 11 0 1 1 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 0 1 7 25 0 1 0 1 0 2 2 0 0 2  6 1 3 0 1  5 2 1 2 2 3 0 10 1 0 1 0
ITM-22: 3  6   8  17   4   8 1 0 0 1 1 1 1  17  12  38  47  21 118

    ID:  73 1 1 3 1 1 0 2 3 1 0 4 0 0 0 0  4 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 0
ITM-41: 0 1 3 0 0 0 1 1 0 0  2 1 0 1 0 0 0 2 0 0 0 0 0 0 0  4 0 0 0 0 0 0 0 0
ITM-69: 0 0 0 0 0 0 0  0 1 0 1 0 0 1 1 1 1 0 1 1  8 1 0 1 1 1 1 1 0 6 1 1 1 1
ITM-98: 1 0 0 1 6 20 0 1 1 2 2 2 2 2 2 0 10 1 2 1 1  5 1 2 0 2 3 3 11 1 0 1 3
ITM-22: 3  6   7  19   0   8 1 0 1 1 1 1 0  13  14  36  48   8 106

    ID:  74 1 2 3 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 1 2 2 2 1 1 11 1 1 1 0 1 0 4 1 1 0 0 0 0 2 17 1 0 0 1 2 1 0 1
ITM-69: 1 3 0 0 1 1 2  7 1 0 0 1 1 1 1 1 1 0 1 0  8 0 0 0 1 1 0 1 0 3 1 1 1 1
ITM-98: 0 0 0 0 4 15 1 0 0 1 2 2 2 2 2 2 12 4 0 0 1  5 2 3 0 2 0 0  7 1 0 1 3
ITM-22: 3  6   6  18   4   8 1 0 1 1 1 1 1  18   9  44  45  31 129
```

```
    ID:  75 1 1 3 1 1 0 2 0 1 0 1 0 0 0 0  1 1 1 1 1 1 1 1 0 1 1 1 10 0 1 1 0
ITM-41: 0 1 3 1 0 2 2 1 0 0  6 1 0 0 0 0 0 0 1 1 1 0 0 0 0 2  9 0 0 0 0 0 0 0 0
ITM-69: 0 0 0 0 0 1 1 2  2 1 1 0 1 0 0 0 0 1 0 1 1  6 1 0 0 1 1 1 1 0 5 1 1 1 1
ITM-98: 1 0 1 1 7 18 0 1 0 1 2 0 2 2 2 0  8 3 1 0 0  4 2 1 0 1 0 0  4 0 0 0 3
ITM-22: 3  6  0  12  4  8 1 0 0 1 1 1 0  16  5  31  42  12  90

    ID:  76 2 1 3 1 1 0 2 3 0 0 3 0 0 0 0  3 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 1
ITM-41: 1 0 4 1 1 0 2 1 0 0  5 1 0 1 0 0 0 2 0 0 0 0 0 0 0  7 1 0 0 1 2 0 0 0
ITM-69: 0 0 0 0 0 1 0 1  3 0 1 0 0 0 0 0 1 0 1 1 5 11 0 0 0 0 0 1 0 1 2 0 0 0 0
ITM-98: 0 0 0 0 7 23 1 1 1 3 2 0 0 0 1 0  3 4 0 0 1  5 2 1 1 0 0 0  3 0 0 0 3
ITM-22: 0  4  0  7  1  2 1 0 0 0 0 0 0  4  6  16  44  13  79

    ID:  77 1 1 3 1 1 0 2 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
ITM-41: 0 1 3 2 1 0 2 1 0 0  6 0 1 0 0 0 0 0 1 1 1 1 0 0 0 3 10 1 0 0 0 1 1 1 0
ITM-69: 0 2 0 0 0 0 0 0  3 0 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 1 1 1 1 1 0 6 0 0 1 1
ITM-98: 1 0 0 1 4 20 1 1 1 3 2 2 2 2 2 0 10 3 2 1 5 11 2 2 2 2 3 2 13 1 0 1 3
ITM-22: 3  0  0  6  4  8 1 0 1 0 1 1 1  17  17  28  54  18 117

    ID:  78 1 1 3 1 1 0 2 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
ITM-41: 0 0 2 2 1 0 2 0 0 0  5 0 1 0 0 0 0 0 1 1 1 0 0 0 0 2  8 0 0 0 0 0 0 1 1 1
ITM-69: 0 3 0 0 1 0 1  4 1 1 1 1 1 1 1 1 1 1 0 1 1 11 1 1 0 1 1 1 1 0 6 1 1 1 1
ITM-98: 1 0 0 1 6 12 1 1 1 3 1 2 1 2 2 0  8 0 3 1 1  5 2 3 2 3 4 3 17 1 0 1 3
ITM-22: 3  6  11  23  4  8 1 0 1 0 1 1 0  16  21  43  38  22 124

    ID:  79 2 2 3 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 2 0 2 1 0 0  7 0 1 1 1 0 0 3 1 1 0 0 0 0 2 12 0 0 0 1 1 1 0 1
ITM-69: 1 3 1 0 1 1 3  7 1 0 1 0 0 1 1 1 1 0 1 1  8 1 1 1 1 1 1 1 0 7 1 1 0 1
ITM-98: 1 0 0 1 5 20 1 1 1 3 2 0 2 0 2 2  8 2 1 0 1  4 0 1 2 0 0 0  3 0 0 0 3
ITM-22: 3  6  10  22  4  8 1 0 1 1 1 1 0  17  6  47  45  27 125

    ID:  80 1 1 3 1 1 0 2 3 1 0 4 0 0 0 0  4 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 0
ITM-41: 0 1 3 1 1 0 1 0 0 0  3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  3 1 0 0 0 1 0 0 1
ITM-69: 0 1 1 0 0 0 1  3 1 1 1 0 0 0 0 0 0 0 1 1  5 1 1 0 0 1 0 1 1 5 1 1 0 1
ITM-98: 1 0 0 0 4 14 0 1 1 2 2 0 0 0 2 0  4 2 3 1 2  8 1 1 2 1 1 0  6 1 0 1 3
ITM-22: 3  6  6  18  4  0 1 0 0 0 0 0 0  5  9  27  39  10  85
```

```
    ID:  81 1 2 2 0 0 0 0 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
ITM-41: 0 0 2 2 1 0 2 0 0 0  5 1 0 0 0 0 0 0 1 1 1 0 0 0 0 2  8 1 0 0 0 1 0 0 0
ITM-69: 0 0 0 0 1 1 2  3 0 1 1 1 0 0 1 0 1 1 1 1 18 1 1 0 0 1 1 0 0 4 1 1 1 1
ITM-98: 1 1 0 1 7 19 0 1 1 2 2 0 2 2 2 0  8 2 1 1 1  5 1 1 1 1 0 0  4 0 0 0 3
ITM-22: 3  6  11  23  4  6 1 0 1 1 1 1 1  16  6  43  43  18 110

    ID:  82 1 1 2 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 0 1 0 0 1 1  8 2 1 1 0
ITM-41: 0 1 3 2 1 0 2 0 0 0  5 1 1 1 0 0 0 3 0 0 0 0 0 0 0 0  8 1 0 0 1 2 1 1 1
ITM-69: 0 3 0 0 0 0 0 0  5 1 0 1 1 0 1 1 1 1 1 1 1 1 10 1 0 1 1 1 1 0 0 5 1 1 0 1
ITM-98: 1 0 0 1 5 20 1 0 0 1 0 0 0 0 0 0  0 1 0 0 0  1 2 0 2 3 1 0  8 1 0 1 3
ITM-22: 0  6  5  14  0  0 0 0 0 0 0 0 0  0  10  19  31  20  80

    ID:  83 2 1 2 1 1 0 2 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 0 1 1 1 1 10 1 1 1 0
ITM-41: 0 0 2 2 1 1 2 0 0 0  6 1 0 0 0 0 0 0 1 1 1 0 0 0 0 2  9 0 0 0 0 0 0 0 1 0
ITM-69: 0 1 0 0 0 0 0 0  1 1 1 0 0 1 1 0 0 1 1 1 0  7 1 0 0 0 1 0 0 1 3 1 1 1 1
ITM-98: 1 0 0 1 6 16 0 1 1 2 2 0 0 0 0 0  2 1 0 0 1  2 0 0 0 0 0 0 0  0 0 0 0 3
ITM-22: 0  6  9  18  0  -8 1 0 0 0 0 0 0  -7  2  14  32  15  63

    ID:  84 2 1 2 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 0 1 1 1 10 3 1 1 0
ITM-41: 0 1 3 1 1 0 2 1 0 0  5 1 1 0 0 0 0 2 1 1 0 0 0 0 2  9 1 0 0 0 1 0 1 1
ITM-69: 0 2 0 0 1 1 2  5 1 1 1 1 0 1 1 1 1 0 1 1 10 1 0 0 0 1 0 0 0 2 1 1 1 1
ITM-98: 1 0 0 1 6 10 0 1 1 3 2 2 2 2 0 0  8 2 1 1 0  4 2 1 2 1 1 0  7 0 0 0 3
ITM-22: 3  6  4  16  4  2 1 0 0 1 0 0 0  8  10  30  34  21  95

    ID:  85 1 1 2 1 0 1 2 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
ITM-41: 0 1 3 2 1 0 2 1 0 0  6 1 1 1 0 0 0 3 1 0 0 0 0 0 1 10 1 0 0 1 2 0 0 0
ITM-69: 0 0 0 0 0 0 0  2 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 1 1 0 6 1 1 1 1
ITM-98: 1 1 1 1 8 26 0 0 1 1 2 2 1 2 0 0  7 1 0 0 1  2 3 3 3 2 1 1 13 1 0 1 3
ITM-22: 3  6  3  15  4  8 1 0 1 0 0 1 0  15  15  35  48  17 115

    ID:  86 2 1 2 1 1 0 2 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 1 1 0 1 10 2 1 1 0
ITM-41: 0 1 3 3 1 2 2 0 0 0  8 1 0 0 0 0 0 0 1 1 1 0 0 0 0 2 11 0 0 0 0 0 0 1 0 1
ITM-69: 0 2 0 0 1 1 2  4 1 1 1 1 1 1 1 1 1 0 1 1 1 11 0 0 0 1 1 1 1 0 4 1 1 1 1
ITM-98: 1 0 0 1 6 21 0 1 1 2 1 2 2 1 1 0  7 5 1 1 1  8 2 2 0 0 0 0  4 0 0 0 3
ITM-22: 3  6  11  23  4  2 1 0 0 0 1 1 1  10  6  38  48  20 112

    ID:  87 2 1 2 1 1 0 2 3 0 0 3 0 0 0 0  3 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
```

```
ITM-41: 0 1 3 2 1 0 2 0 0 0  5 0 0 0 0 0 0 0 1 1 0 0 0 0 2  7 0 0 0 0 0 0 0 0
ITM-69: 0 0 0 0 1 1 2  2 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 1 1 1 0 1 1 6 1 1 1 1
ITM-98: 1 1 0 1 7 25 1 0 1 2 2 2 0 0 2 0  6 1 1 0 1  3 3 2 3 0 3 2 13 1 0 1 3
ITM-22: 3  6   9  21   4   4 0 0 0 0 0 0 0   8  16  34  47  12 109

    ID:  88 2 2 2 1 1 1 3 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 0 1 10 4 1 1 0
ITM-41: 1 1 4 2 1 2 2 0 0 0  7 1 0 0 0 0 0 1 1 1 1 0 0 0 3 11 0 0 0 0 0 1 0 0
ITM-69: 1 2 1 0 1 1 3  5 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 0 1 0 1 1 5 1 1 0 1
ITM-98: 1 0 1 1 6 23 1 1 1 3 1 2 2 2 2 0  9 1 1 1 1  4 3 2 3 0 0 0  8 1 0 1 3
ITM-22: 3  6  10  22   4   0 0 0 0 0 0 0 0   4  12  34  49  23 118

    ID:  89 2 1 2 1 1 0 2 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 0 1 1 1 10 2 1 1 0
ITM-41: 0 0 2 1 0 0 2 0 0 0  3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  3 0 1 0 0 1 0 0 0
ITM-69: 0 0 0 0 1 1 2  3 1 0 1 1 1 1 1 0 1 1 1 1 10 1 0 1 0 1 1 1 0 5 1 1 1 1
ITM-98: 1 1 0 1 7 22 1 1 0 2 0 2 2 0 2 0  6 3 1 1 2  7 0 2 2 2 0 0  6 0 0 0 0
ITM-22: 3  6  11  20   2   8 1 1 1 1 1 1 0  16   8  40  47  11 106

    ID:  90 1 2 2 1 1 0 2 0 2 2 4 1 0 0 1  5 1 1 1 1 1 1 1 0 1 1 1 10 1 1 1 0
ITM-41: 0 0 2 2 1 0 2 1 0 0  6 1 0 0 0 0 0 1 0 0 0 0 0 0 0  7 1 0 0 1 2 0 0 0
ITM-69: 0 0 0 0 1 1 2  4 1 0 1 0 0 1 1 1 0 1 1 1  8 1 1 0 1 1 0 1 0 5 1 0 0 0
ITM-98: 0 0 0 1 2 15 1 0 1 2 0 0 0 0 0 0  0 2 1 1 2  6 2 2 1 0 0 0  5 1 0 1 3
ITM-22: 0  6   7  16   4  -4 1 1 0 0 1 0 0   3   8  22  33  16  79

    ID:  91 2 2 2 1 1 0 2 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 0
ITM-41: 1 1 4 2 1 1 2 0 0 0  6 1 0 1 0 0 0 2 1 1 0 0 0 0 2 10 1 0 0 0 1 1 0 0
ITM-69: 0 1 0 0 1 1 2  4 0 1 1 0 1 1 1 0 1 0 1 0  7 1 0 1 1 1 1 1 0 6 1 1 1 1
ITM-98: 1 0 1 1 7 20 0 0 1 1 2 2 2 1 2 0  9 3 0 0 1  4 3 2 3 2 3 0 13 1 0 1 3
ITM-22: 3  1   1   8   4   8 0 0 0 0 0 1 0  13  15  26  46  19 106

    ID:  92 1 4 2 1 1 1 3 3 2 2 7 1 0 1 2  9 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 2 2 2 2 2 0 0 10 1 1 1 1 1 3 8 1 1 1 1 0 0 4 22 1 0 0 0 1 1 1 1
ITM-69: 0 3 1 0 1 0 2  6 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 1 1 8 27 1 1 1 3 2 2 2 2 2 2 12 5 3 2 5 15 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 0 0 1 0 1 1  16  25  46  68  37 176

    ID:  93 2 2 2 1 1 0 2 3 2 2 7 1 1 0 2  9 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 0
ITM-41: 0 1 3 2 2 1 2 1 2 1 11 1 1 1 1 0 0 4 1 1 1 1 1 0 5 20 1 0 0 0 1 1 1 1
```

ITM-69: 1 4 1 0 1 1 3 8 1 1 1 1 0 1 0 0 1 0 1 1 8 1 0 1 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 0 1 7 22 0 0 1 1 2 0 2 0 1 0 5 1 2 2 1 6 2 1 3 3 3 2 14 1 0 1 3
ITM-22: 3 6 12 24 4 -4 1 0 0 0 0 0 0 1 16 32 46 37 131

ID: 94 1 1 2 1 1 0 2 3 1 2 6 0 0 0 0 6 1 1 1 1 1 1 1 1 1 0 1 10 2 1 1 0
ITM-41: 0 0 2 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 1 0 0 0 0 2 3 1 0 0 0 1 1 0 0
ITM-69: 0 1 0 0 1 0 1 3 1 0 1 1 1 0 1 0 1 0 1 1 8 1 1 1 1 1 1 1 0 7 1 1 1 1
ITM-98: 1 1 1 1 8 23 1 1 1 3 0 0 0 0 0 0 0 0 0 1 2 3 0 0 0 0 0 0 0 0 0 0 3
ITM-22: 3 6 11 23 4 8 1 0 1 1 1 1 1 18 3 45 38 12 98

ID: 95 1 1 2 0 0 0 0 3 2 2 7 1 0 0 1 8 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
ITM-41: 0 1 3 2 1 2 1 1 0 0 7 1 0 1 0 0 0 0 2 1 1 0 0 0 0 2 11 1 1 0 0 2 1 0 0
ITM-69: 0 1 0 0 1 0 1 4 1 1 1 1 1 1 1 0 1 1 1 1 11 1 0 0 1 0 0 0 0 2 0 1 1 1
ITM-98: 1 0 0 1 5 18 1 1 1 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 3 2 2 3 0 10 0 0 0 3
ITM-22: 3 6 9 21 0 -4 1 0 0 0 0 0 0 0 -3 13 23 29 23 88

ID: 96 2 4 2 1 1 0 2 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 0 1 4 2 2 2 2 1 2 0 11 1 0 1 0 0 0 2 1 1 1 1 0 0 4 17 1 0 0 0 1 1 1 1
ITM-69: 1 4 1 0 1 1 3 8 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 0 1 1 1 1 6 1 1 1 1
ITM-98: 1 1 1 1 8 26 1 1 1 3 2 2 2 2 2 2 12 3 4 2 3 12 3 3 3 3 4 3 19 1 0 1 3
ITM-22: 3 6 11 23 4 8 1 0 1 1 1 1 1 18 23 48 63 39 173

ID: 97 1 3 2 1 1 0 2 3 0 0 3 0 0 0 0 3 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 0
ITM-41: 0 1 3 2 2 2 1 1 0 0 1 1 1 1 0 0 0 3 1 1 0 0 0 0 2 13 1 0 0 1 2 1 1 1
ITM-69: 0 3 1 0 0 0 1 6 0 1 1 1 1 1 1 1 1 1 1 1 11 0 1 1 1 1 0 1 0 5 1 1 1 1
ITM-98: 1 1 0 1 7 23 1 1 1 3 2 2 2 1 1 0 8 3 3 2 2 10 2 1 1 0 0 0 4 0 0 0 3
ITM-22: 3 6 10 22 4 8 1 0 1 1 1 1 1 0 17 7 46 54 22 129

ID: 98 2 3 2 1 1 1 3 3 2 2 7 0 0 0 0 7 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 2 2 2 1 1 0 10 1 0 1 1 0 2 5 1 1 1 1 1 0 5 20 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 0 1 0 0 0 4 1 1 1 1
ITM-98: 1 0 0 1 6 22 0 1 1 2 2 2 2 2 2 2 12 4 2 2 5 13 3 3 3 3 4 0 16 1 1 2 3
ITM-22: 3 6 12 24 4 8 1 0 1 1 1 1 1 0 17 20 49 61 37 167

ID: 99 1 4 2 1 1 0 2 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 1 2 2 2 2 13 1 1 1 1 1 3 8 1 1 1 1 1 1 6 27 1 0 0 1 2 1 0 1
ITM-69: 1 3 1 1 1 1 4 9 0 1 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 1 1 1 0 1 7 1 1 1 1

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ITM-98: 1 1 1 1 8 26 1 1 1 3 2 2 2 2 2 2 12 1 3 2 3  9 3 3 3 3 3 4 19 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19  24  52  60  50 186

    ID: 100 2 4 2 1 1 0 2 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 2 2 14 1 1 1 1 1 0 5 1 1 0 0 0 0 2 21 1 0 0 0 1 0 1 1
ITM-69: 1 3 1 0 1 1 3  7 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 0 1 1 1 1 7 1 1 1 1
ITM-98: 1 0 1 1 7 26 0 1 1 2 2 2 2 2 2 2 12 3 3 1 1  8 3 3 2 3 3 4 18 1 1 2 3
ITM-22: 3  6  11  23   4   4 1 0 1 1 1 1 0  13  22  43  59  38 162

    ID: 101 1 3 2 1 1 0 2 3 2 2 7 1 2 2 5 12 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 2 2 14 1 1 1 1 1 0 5 1 1 1 1 1 1 6 25 1 1 1 1 4 1 1 1
ITM-69: 1 4 1 1 1 1 4 12 1 1 1 1 0 1 0 1 1 1 1 1 10 1 1 0 1 1 0 1 0 5 1 1 1 1
ITM-98: 1 0 1 1 7 22 1 1 1 3 2 2 2 0 2 2 10 2 4 2 2 10 3 3 3 3 3 1 16 1 0 1 3
ITM-22: 3  6  11  23   4   8 1 0 1 1 1 1 1  18  20  50  55  49 174

    ID: 102 1 3 2 1 1 1 3 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 2 0 2 1 1 0 0  6 1 0 0 0 0 0 1 1 1 1 0 0 0 3 10 1 0 0 0 1 1 1 1
ITM-69: 1 4 1 1 1 1 4  9 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 0 1 1 6 1 1 1 1
ITM-98: 1 1 1 1 8 26 1 1 1 3 2 2 2 2 2 2 12 5 4 3 1 13 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  4   8  18   4   8 1 0 1 1 1 1 1  18  25  42  65  26 158

    ID: 103 1 3 2 1 1 1 3 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 0 0 10 1 1 1 1 0 2 6 1 1 0 0 0 0 2 18 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 0 1 0 2  8 1 1 1 0 0 1 1 1 1 0 1 1  9 1 1 0 1 1 0 1 1 6 1 1 1 0
ITM-98: 1 1 1 1 7 22 0 1 0 1 2 2 1 1 2 0  8 4 1 2 3 10 3 3 3 3 4 1 17 1 1 2 3
ITM-22: 3  0   0   6   4   2 1 0 0 1 1 1 0  10  20  22  54  33 129

    ID: 104 1 5 2 1 1 0 2 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 1 0 11 1 1 1 1 0 0 4 1 1 0 0 0 0 2 17 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 0 1 1 7 26 0 1 1 2 2 2 2 2 0 2 10 2 1 2 0  5 3 3 3 3 4 0 16 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 0 1 1 1 1 1  18  20  50  54  38 162

    ID: 105 2 5 2 1 1 0 2 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 2 2 14 1 1 1 1 1 3 8 1 1 1 1 0 0 4 26 1 1 0 0 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 0 1 1 0 1 1 1 1 1 1 1 10 1 1 1 0 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 1 1 8 25 1 1 1 3 2 2 2 2 2 2 12 5 3 2 8 18 3 3 3 3 3 4 19 1 1 2 3
```

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ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19  24  52  68  46 190

    ID: 106 1 1 2 1 1 0 2 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 1 1 1 1 11 0 1 1 0
ITM-41: 1 1 4 2 1 0 2 2 0 0  7 1 1 1 0 0 0 3 1 1 0 0 0 0 2 12 0 0 0 0 0 0 0 0
ITM-69: 0 0 0 0 0 0 0 0  0 0 1 1 1 0 1 1 0 1 1 1 1  9 1 1 0 0 1 0 0 1 4 1 1 0 1
ITM-98: 1 0 0 1 5 19 0 0 1 1 2 0 0 0 0 0  2 1 1 0 0  2 1 0 0 0 0 0  1 1 0 1 3
ITM-22: 3  6   7  19   1   0 0 0 0 0 0 0 0   1   3  24  36  17  80

    ID: 107 2 1 2 1 0 0 1 3 1 0 4 0 0 0 0  4 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
ITM-41: 0 0 2 1 1 1 1 1 0 0  5 0 0 0 0 0 0 0 0 0 0 0 0 0 0  5 0 0 0 0 0 1 1 1
ITM-69: 0 3 0 0 0 0 0 0  3 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 0 1 7 26 0 1 0 1 0 0 0 0 2 0  2 2 0 0 0  2 3 1 2 2 0 0  8 1 1 2 3
ITM-22: 0 -2 -11 -10   2   4 0 0 0 0 0 0 0   6  11   0  42  12  65

    ID: 108 1 1 2 1 1 0 2 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 0
ITM-41: 0 0 2 2 1 0 2 1 0 0  6 1 0 0 0 0 0 1 0 0 0 0 0 0 0  7 1 0 0 0 1 0 0 0
ITM-69: 0 0 0 0 0 0 0 0  1 0 1 1 1 1 0 1 1 1 1 0 1  9 0 1 1 1 0 0 1 0 4 0 1 0 0
ITM-98: 1 0 0 1 3 16 1 0 1 2 2 2 0 0 1 0  5 0 0 0 0  0 2 1 2 0 0 0  5 0 0 0 3
ITM-22: 3 -2   9  13   4   8 1 0 0 1 1 1 1  17   7  33  34  13  87

    ID: 109 2 2 2 1 1 1 3 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 1 1 0 2 1 0 0  5 1 0 1 0 0 0 2 1 0 0 0 0 0 1  8 0 0 0 0 0 1 1 1
ITM-69: 1 4 1 0 1 1 3  7 1 1 1 1 1 1 0 0 1 1 1 1 10 1 0 1 1 1 0 1 1 6 1 1 1 1
ITM-98: 1 0 0 1 6 22 1 1 1 3 2 2 2 0 2 0  8 3 2 3 1  9 0 0 3 2 0 2  7 1 0 1 3
ITM-22: 3  6  10  22   4   8 1 0 1 0 1 1 0  16  11  44  53  25 133

    ID: 110 2 2 2 1 1 0 2 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 0 1 4 2 1 2 2 1 0 0  8 1 0 1 0 0 0 2 0 0 0 0 0 0 0 10 0 0 0 0 0 1 1 0
ITM-69: 0 2 1 0 1 1 3  5 1 0 1 1 1 1 1 1 1 1 1 1 11 1 1 0 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 0 1 7 25 1 0 1 2 2 2 2 2 2 0 10 3 2 0 3  8 2 3 2 3 2 2 14 1 0 1 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 0 0 1  17  17  48  56  20 141

    ID: 111 1 4 2 1 1 0 2 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
ITM-41: 0 1 3 2 1 0 2 1 0 0  6 1 1 1 0 0 0 3 1 1 0 0 0 0 2 11 1 1 0 1 3 0 1 0
ITM-69: 0 1 1 1 0 0 2  6 1 1 1 1 1 1 1 0 1 1 1 1 11 1 1 1 1 1 0 1 1 7 1 1 1 1
ITM-98: 1 1 0 1 7 25 0 1 1 2 2 2 2 2 2 2 12 3 5 1 3 12 3 2 2 3 2 3 15 1 0 1 3
ITM-22: 3  6   6  18   4   8 1 0 1 0 0 1 1  16  18  39  62  22 141
```

```
    ID: 112 2 2 2 1 1 1 3 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 2 1 2 1 1 0 0  7 1 0 0 0 0 0 1 1 1 0 0 0 0 2 10 0 0 0 0 0 1 1 1
ITM-69: 1 4 0 0 0 0 0 0  4 1 1 1 1 0 1 1 1 1 1 1 1 1 11 1 1 1 0 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 0 1 7 25 0 0 1 1 2 2 2 2 1 2 11 1 0 2 1  4 3 3 3 3 2 2 16 1 0 1 3
ITM-22: 3  5   8  19   4   8 1 1 1 1 1 1 1  19  18  44  54  24 140

    ID: 113 1 2 2 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 1 1 5 2 1 2 2 1 0 0  8 1 1 0 0 0 0 0 2 1 1 0 0 0 0 2 12 1 0 0 0 1 1 0 0
ITM-69: 0 1 0 0 0 0 0 0  2 1 1 1 1 1 1 1 1 1 0 1 1 11 0 1 1 0 1 1 1 1 6 0 1 1 1
ITM-98: 1 0 1 1 6 23 1 0 1 2 2 2 2 2 2 0 10 4 3 4 3 14 3 0 3 3 0 0  9 1 0 1 3
ITM-22: 3  6   7  19   4   8 1 0 1 1 0 1 1  17  12  43  60  21 136

    ID: 114 2 3 2 1 1 1 3 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
ITM-41: 0 1 3 2 0 2 2 1 0 0  7 1 1 1 0 0 0 3 1 1 1 1 0 0 4 14 1 0 0 0 1 1 1 1
ITM-69: 0 3 1 1 1 1 4  8 0 1 1 1 1 1 0 1 1 1 1 1 10 1 1 1 1 1 0 1 1 7 1 1 1 1
ITM-98: 1 0 1 1 7 24 0 1 1 2 2 2 0 2 2 0  8 1 0 0 1  2 3 3 2 3 3 2 16 1 1 2 3
ITM-22: 3  6  11  23   4   8 1 0 1 1 1 1 1  18  20  46  48  29 143

    ID: 115 2 4 2 1 1 1 3 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 1 2 2 2 2 0 11 1 1 1 0 0 0 3 1 1 0 0 0 0 2 16 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 28 1 1 1 3 2 2 0 2 2 2 10 2 3 2 5 12 3 3 3 3 3 2 17 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 0 1 1 1 1 1  18  22  50  64  40 176

    ID: 116 2 3 2 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 0
ITM-41: 0 1 3 2 1 0 2 2 0 0  7 1 0 0 0 0 0 1 1 1 0 0 0 0 2 10 0 0 0 0 0 1 1 1
ITM-69: 0 3 1 1 1 1 4  7 1 0 0 0 1 1 1 1 1 0 1 1  8 0 1 0 0 1 1 1 1 5 1 1 1 1
ITM-98: 1 1 0 1 7 20 1 1 1 3 2 2 2 2 2 2 12 0 1 0 1  2 3 2 3 2 4 0 14 1 0 1 3
ITM-22: 3  3 -11  -2   4   8 1 0 0 0 0 0 0  13  18  15  47  25 105

    ID: 117 2 5 2 1 1 0 2 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 1 2 2 2 2 0 11 1 1 1 1 1 3 8 1 1 1 1 1 1 6 25 1 0 0 0 1 1 1 1
ITM-69: 1 4 1 1 1 1 4  9 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 1 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 1 1 8 27 1 1 1 3 2 2 2 2 2 2 12 7 4 4 7 22 3 3 3 3 3 4 19 1 0 1 3
ITM-22: 3  6  12  24   4   8 1 1 0 1 1 1 1  18  23  50  74  48 195
```

```
    ID: 118 2 5 2 1 1 1 3 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 2 2 14 1 1 1 1 1 3 8 1 1 1 1 1 1 6 28 1 0 0 0 1 1 1 1
ITM-69: 1 4 0 0 1 1 2  7 1 1 1 1 1 0 1 1 1 1 1 1 11 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 27 1 1 1 3 2 2 2 2 2 2 12 3 3 3 4 13 3 3 3 3 4 3 19 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 0 1 1 0 1 1  17  24  50  66  46 186

    ID: 119 1 5 2 1 1 1 3 3 2 2 7 1 0 1 2  9 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 1 2 2 13 1 1 1 0 0 0 3 1 1 1 1 1 0 5 21 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 28 1 1 1 3 2 2 2 1 2 2 11 2 3 1 3  9 3 3 3 3 4 3 19 1 1 2 3
ITM-22: 3  6  10  22   4   8 1 0 1 1 1 1 1  18  24  49  62  40 175

    ID: 120 2 5 2 1 1 0 2 3 2 2 7 1 0 1 2  9 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 1 0 11 1 1 1 1 1 3 8 1 1 1 1 0 0 4 23 1 1 1 0 3 1 1 1
ITM-69: 1 4 1 1 1 1 4 11 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 0 1 1 1 1 6 1 1 1 1
ITM-98: 1 1 1 1 8 26 1 1 1 3 2 2 2 2 2 0 10 2 4 1 2  9 3 3 3 3 4 4 20 1 0 1 3
ITM-22: 3  6  12  24   4   8 1 1 1 0 1 1 1  18  24  50  58  43 175

    ID: 121 1 5 2 1 1 0 2 3 2 2 7 1 2 2 5 12 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 2 1 13 1 1 1 1 1 3 8 1 1 1 0 0 0 3 24 1 1 1 1 4 1 1 1
ITM-69: 1 4 1 1 1 1 4 12 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 0 0 1 6 26 1 1 1 3 2 2 0 0 2 2  8 6 6 3 3 18 3 3 3 3 3 3 18 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19  23  50  65  48 186

    ID: 122 1 5 2 1 1 0 2 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 2 2 14 1 1 1 1 1 3 8 1 1 1 1 1 1 6 28 1 1 1 1 4 1 1 1
ITM-69: 1 4 1 1 1 1 4 12 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 1 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 0 1 7 26 1 1 1 3 2 2 2 2 1 2 11 2 4 2 1  9 3 3 3 3 3 3 18 1 1 2 3
ITM-22: 3  5  11  22   4   8 1 0 1 1 1 1 1  18  23  49  59  51 182

    ID: 123 2 3 2 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 1 0 11 1 1 1 1 0 2 6 1 1 1 1 1 1 6 23 1 0 0 1 2 1 1 1
ITM-69: 1 4 0 0 1 1 2  8 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 0 0 1 6 26 0 0 0 0 2 2 2 2 2 0 10 5 1 1 2  9 1 1 2 3 3 3 13 1 1 2 3
ITM-22: 3  6  12  24   1   8 1 0 0 1 1 1 0  13  15  45  58  38 156

    ID: 124 2 5 2 1 1 1 3 3 2 2 7 1 0 1 2  9 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
```

```
ITM-41: 1 1 5 2 2 1 2 2 0 0  9 1 1 1 0 1 2 6 1 1 1 1 0 0 4 19 1 0 0 1 2 1 0 1
ITM-69: 1 3 1 0 1 1 3  8 0 1 1 1 1 1 0 1 1 1 1 1 10 1 1 1 0 1 1 1 0 6 1 1 1 1
ITM-98: 0 1 1 1 7 23 0 0 1 1 2 2 2 0 2 2 10 3 2 4 4 13 3 3 3 3 4 3 19 1 1 2 3
ITM-22: 3  6  11  23   4   8 1 1 1 1 1 1 1  19  22  50  60  36 168

    ID: 125 2 5 2 1 1 0 2 3 2 0 5 1 2 4 7 12 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 1 1 12 1 1 1 1 0 2 6 1 1 1 1 1 1 6 24 1 0 0 0 1 1 1 1
ITM-69: 1 4 0 0 1 0 1  6 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 0 1 7 27 1 1 1 3 2 2 2 2 2 2 12 3 2 1 6 12 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19  25  52  64  42 183

    ID: 126 1 5 2 1 1 0 2 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 1 1 12 1 1 1 1 1 3 8 1 1 1 1 1 1 6 26 1 1 1 1 4 1 1 1
ITM-69: 1 4 1 0 1 1 3 11 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 28 1 1 1 3 2 2 2 2 2 2 12 1 5 3 3 12 3 3 3 3 4 2 18 1 1 2 3
ITM-22: 3  6  12  24   4   0 1 0 1 1 0 1 1   9  23  41  65  51 180

    ID: 127 2 5 2 1 1 0 2 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 0
ITM-41: 0 1 3 2 2 2 2 2 2 2 14 1 1 1 1 1 3 8 1 1 1 1 1 1 6 28 1 1 1 1 4 1 1 1
ITM-69: 1 4 1 0 0 0 1  9 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 1 0 1 6 1 1 1 1
ITM-98: 1 1 1 1 8 26 1 1 1 3 2 2 2 2 2 2 12 2 4 5 3 14 3 3 3 3 4 3 19 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19  24  50  65  48 187

    ID: 128 1 5 2 1 1 0 2 3 2 2 7 1 2 2 5 12 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 2 1 2 2 2 2 2 13 1 1 1 1 0 3 7 1 1 1 1 1 0 5 25 1 1 1 0 3 1 1 1
ITM-69: 1 4 1 0 1 1 3 10 1 1 1 1 1 1 1 1 1 0 1 1 11 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 0 1 7 26 1 1 1 3 2 2 2 2 2 2 12 3 4 6 6 19 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19  25  49  70  47 191

    ID: 129 1 5 2 1 1 1 3 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 2 2 2 1 2 0 11 1 1 1 0 0 0 3 1 1 1 1 1 1 6 20 1 1 0 1 3 1 1 1
ITM-69: 1 4 1 1 1 1 4 11 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 28 1 1 1 3 1 2 1 2 2 2 10 4 2 4 1 11 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  11  23   4   8 1 1 1 1 1 1 1  19  25  50  63  42 180

    ID: 130 1 4 2 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 1 2 2 2 0 0  9 1 1 1 0 0 0 3 1 1 1 0 0 0 3 15 1 1 0 0 2 1 0 1
```

```
ITM-69: 1 3 1 1 1 1 4  9 1 1 1 1 1 1 1 1 1 0 1 1 11 1 1 1 1 1 1 1 1 8 0 1 1 1
ITM-98: 1 1 0 1 6 25 1 1 1 3 1 1 2 0 2 2  8 4 2 1 3 10 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6   5  17   4   8 1 0 1 1 1 1 1  18  25  44  56  31 156

    ID: 131 2 3 2 1 1 1 3 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 1 0 11 1 1 1 1 0 2 6 1 1 1 1 1 0 5 22 0 0 0 0 0 1 1 1
ITM-69: 1 4 1 1 1 1 4  8 1 1 1 1 1 1 1 1 1 0 1 1 10 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 27 0 1 1 2 2 2 2 2 2 0 10 2 2 2 4 10 2 1 2 2 2 0  9 1 0 1 3
ITM-22: 3  6  12  24   4   8 1 0 1 1 0 1 1  17  12  50  61  38 161

    ID: 132 2 4 2 1 1 1 3 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 2 2 14 1 1 1 0 1 2 6 1 1 1 1 1 1 6 26 0 0 0 0 0 1 1 1
ITM-69: 1 4 1 1 1 1 4  8 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 0 1 7 27 1 1 1 3 2 2 2 2 2 2 12 4 4 2 3 13 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19  25  52  66  45 188

    ID: 133 1 2 2 1 1 0 2 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 0 1 4 2 1 0 2 2 1 0  8 1 1 1 0 0 0 3 1 1 1 1 1 0 5 16 1 0 0 1 2 1 0 1
ITM-69: 1 3 1 1 1 1 4  9 1 1 1 1 1 1 1 1 1 1 1 1 12 0 1 0 1 1 1 1 1 6 1 1 1 1
ITM-98: 1 1 0 1 7 25 1 1 1 3 2 2 2 2 2 0 10 4 4 4 2 14 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19  25  50  62  36 173

    ID: 134 2 5 2 1 1 0 2 3 2 2 7 1 2 2 5 12 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 2 2 14 1 1 1 1 1 3 8 1 1 1 1 1 1 6 28 1 1 0 1 3 0 1 1
ITM-69: 1 3 1 0 1 1 3  9 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 0 1 1
ITM-98: 0 0 1 1 5 25 1 1 1 3 1 1 1 2 2 2  9 4 5 1 2 12 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 0 0 1 1 1 1  17  25  50  59  49 183

    ID: 135 1 5 2 1 1 1 3 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 0
ITM-41: 0 1 3 2 1 2 2 1 0 0  8 1 0 1 1 1 3 7 1 1 0 0 0 0 2 17 0 0 0 0 0 1 1 1
ITM-69: 1 4 0 0 1 1 2  6 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 0 0 1 1 1 1 5 1 1 1 1
ITM-98: 1 1 1 1 8 25 0 1 0 1 2 2 2 2 1 2 11 6 4 4 0 14 0 0 0 0 0 0  0 1 1 2 3
ITM-22: 3  6  -5   7   4   8 1 1 1 1 1 1 1  19   3  33  64  34 134

    ID: 136 1 5 2 1 1 0 2 3 2 2 7 1 0 4 5 12 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 1 0 11 1 1 1 0 1 0 4 1 1 1 1 1 1 6 21 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 0 1 0 0 4 1 1 1 1
```

```
ITM-98: 1 1 0 1 7 23 0 1 1 2 2 2 2 2 2 2 12 5 2 3 4 14 3 3 3 3 4 3 19 1 1 2 3
ITM-22: 3  6  12  24  1  8 1 1 1 1 1 1 1  16  23  48  62  43 176

    ID: 137 1 4 2 1 1 0 2 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 1 1 12 1 1 1 1 1 3 8 1 1 1 1 1 0 5 25 1 1 0 0 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 0 1 1 0 1 0 4 1 1 1 1
ITM-98: 1 1 1 1 8 24 1 1 1 3 2 2 2 0 2 0  8 5 4 1 0 10 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3 -2  0  4  4  8 1 0 1 1 1 1 1  18  25  30  55  46 156

    ID: 138 1 5 2 1 1 1 3 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 1
ITM-41: 1 1 5 2 1 2 2 2 2 0 11 1 1 1 1 1 1 6 1 1 1 1 1 1 6 22 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 0 1 1 3  9 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 28 0 0 1 1 2 2 2 2 2 2 12 3 3 3 2 11 3 3 3 3 4 2 18 1 0 1 3
ITM-22: 3  6  12  24  4  8 1 0 0 1 0 1 1  16  20  46  65  42 173

    ID: 139 1 3 2 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 1
ITM-41: 1 1 5 2 1 0 2 2 1 0  8 1 0 1 0 0 0 2 1 1 0 0 0 0 2 12 0 0 0 0 0 1 1 1
ITM-69: 0 3 0 0 1 1 2  5 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 0 1 1 1 0 6 0 1 1 1
ITM-98: 1 0 1 1 6 24 0 1 1 2 2 2 2 0 2 0  8 2 0 0 3  5 0 0 0 0 0 0  0 0 0 0 3
ITM-22: 3  6  12  24  4  6 1 0 0 0 0 1 0  12  2  42  50  24 118

    ID: 140 2 5 2 1 1 0 2 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 1 0 11 1 1 1 1 1 3 8 1 1 1 1 1 1 6 25 1 0 0 0 1 1 1 1
ITM-69: 1 4 1 1 1 1 4  9 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 0 1 7 27 1 1 1 3 2 2 2 2 2 2 12 4 2 3 3 12 3 3 3 3 4 2 18 1 1 2 3
ITM-22: 3  6  11  23  4  8 1 1 1 1 1 1 1  19  23  51  64  48 186

    ID: 141 2 3 2 1 1 1 3 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 2 1 1 2 1 1 0  8 1 0 1 1 0 2 5 1 1 1 0 0 0 3 16 1 0 0 1 2 1 0 1
ITM-69: 1 3 1 0 0 0 1  6 1 1 1 1 1 1 1 1 1 0 1 1 11 1 0 0 1 1 0 1 1 5 0 0 1 1
ITM-98: 1 0 1 1 5 21 0 1 1 2 2 0 2 1 2 0  7 1 1 3 1  6 3 3 3 3 3 3 18 1 1 2 3
ITM-22: 0  6  9  18  4  8 1 1 1 1 1 1 1  19  22  43  48  27 140

    ID: 142 2 3 2 1 1 1 3 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 2 1 13 1 1 1 1 0 2 6 1 1 1 1 1 1 6 25 1 0 0 0 1 1 0 1
ITM-69: 1 3 1 0 1 1 3  7 1 1 1 1 1 1 1 1 1 1 0 0 10 1 0 1 0 1 1 1 0 5 1 1 1 1
ITM-98: 1 0 1 1 7 22 1 1 1 3 2 2 2 2 2 0 10 2 2 1 2  7 3 3 3 1 2 2 14 1 1 2 3
```

```
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19  19  51  53  40 163

    ID: 143 1 4 2 1 1 1 3 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 1 2 2 2 1 1 11 1 1 1 1 0 0 4 1 1 0 0 0 0 2 17 1 0 0 1 2 0 1 1
ITM-69: 1 3 0 0 0 0 0  5 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 0 1 1 7 27 0 0 1 1 2 2 2 0 2 2 10 2 1 3 2  8 3 3 3 3 4 3 19 1 1 2 3
ITM-22: 3  6  12  24   4   6 1 0 1 1 1 0 0  14  22  47  59  30 158

    ID: 144 2 4 2 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 1 0 11 1 1 1 0 1 2 6 1 1 1 1 1 1 6 23 0 0 0 0 0 1 1 1
ITM-69: 1 4 1 0 1 1 3  7 1 0 1 0 1 1 1 1 1 1 1 1 10 0 1 1 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 1 1 8 25 1 1 0 2 2 2 2 1 2 2 11 3 3 3 4 13 3 3 3 3 4 3 19 1 1 2 3
ITM-22: 3  6  -3   9   4   8 1 0 1 1 1 1 1  18  23  36  62  38 159

    ID: 145 2 4 2 1 1 0 2 3 2 1 6 0 0 0 0  6 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 0 2 2 2 2 2 1 0 0  9 1 0 1 1 0 0 3 1 1 1 1 1 0 5 17 0 0 0 0 0 1 1 1
ITM-69: 1 4 1 0 0 0 1  5 1 1 1 1 1 0 1 1 1 0 1 1 10 1 0 0 1 1 1 1 1 6 1 1 1 1
ITM-98: 1 0 0 1 6 22 1 0 0 1 2 2 2 2 2 2 12 1 2 3 3  9 3 3 3 3 3 3 18 1 0 1 3
ITM-22: 3  6   7  19   4   4 0 0 1 1 0 0 0  10  20  34  56  28 138

    ID: 146 2 4 2 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
ITM-41: 0 1 3 1 1 2 2 1 0 0  7 1 0 1 0 0 0 2 1 1 1 1 0 0 4 13 0 0 0 0 0 1 1 1
ITM-69: 1 4 0 0 1 1 2  6 1 1 1 1 1 1 1 1 1 0 1 1 11 1 0 0 0 1 1 0 1 4 1 1 1 1
ITM-98: 1 1 0 1 7 22 1 0 0 1 0 0 0 0 2 0  2 3 5 1 4 13 0 2 2 2 3 3 12 1 0 1 3
ITM-22: 3 -2   9  13   4   8 1 0 1 1 1 1 1  18  14  36  50  26 126

    ID: 147 1 3 2 1 1 1 3 3 2 2 7 1 1 1 3 10 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 1 0 11 1 1 1 0 1 2 6 1 1 1 1 1 0 5 22 0 0 0 0 0 0 1 1
ITM-69: 1 3 0 0 1 1 2  5 1 1 0 1 1 1 1 0 1 1 1 1 10 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 0 0 1 6 24 0 1 1 2 2 2 2 0 2 0  8 5 3 1 2 11 3 2 2 0 0 3 10 1 0 1 3
ITM-22: 3  6  12  24   4   8 1 0 1 1 1 1 1  18  13  49  57  37 156

    ID: 148 1 3 2 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 2 1 0 2 2 0 0  7 1 0 0 0 0 0 1 1 1 1 1 1 0 5 13 1 0 0 0 1 1 1 0
ITM-69: 0 2 0 0 1 1 2  5 0 0 0 1 1 1 1 0 1 1 1 0  7 0 0 0 0 1 0 1 1 3 0 0 1 1
ITM-98: 1 0 1 1 5 15 0 0 1 1 2 0 2 0 2 0  6 2 1 0 3  6 2 1 2 1 3 1 10 1 0 1 3
ITM-22: 3  6  12  24   4   8 0 0 0 1 1 1 0  15  12  45  40  25 122
```

```
   ID: 150  1  3  2  1  1  0  2  3  2  2  7  1  2  2  5 12  1  1  1  1  1  1  1  1  1  1 11  4  1  1  1
TM-41:   1  1  5  2  1  2  2  2  1  0 10  1  1  1  0  1  3  7  1  1  1  1  1  0  5 22  1  0  0  0  1  1  1  1
TM-69:   1  4  1  0  1  1  3  8  1  1  1  1  1  1  1  0  1  0  1  1 10  1  0  1  1  1  0  1  1  6  1  1  1  1
TM-98:   1  1  1  1  8 24  1  0  1  2  2  2  2  2  2  2 12  3  5  4  5 17  1  3  3  3  2  3 15  1  1  2  3
TM-22:   3  6  10  22  4  8  1  0  1  1  1  1  1  18  19  49  66  42 176

   ID: 151  2  2  2  1  1  1  3  3  2  0  5  0  0  0  0  5  1  1  1  1  1  1  1  1  1  1  1 11  3  1  1  1
TM-41:   0  1  4  2  1  2  2  1  1  0  9  1  1  1  0  1  2  6  1  1  1  1  1  0  5 20  1  0  0  1  2  1  1  1
TM-69:   1  4  1  0  0  0  1  7  1  1  1  1  1  1  0  1  1  1  0  1  1 10  1  1  0  1  1  1  0  1  6  1  0  0  1
TM-98:   1  0  1  1  5 21  1  0  0  1  2  2  2  2  2  0 10  3  4  2  2 11  3  3  3  3  3  2 17  1  1  2  3
TM-22:   0 -2  8  9  4  8  1  0  1  1  1  1  1  18  20  34  56  32 142

   ID: 152  2  3  2  1  1  0  2  3  2  2  7  0  0  0  0  7  1  1  1  1  1  1  1  0  1  1  1 10  3  1  1  0
TM-41:   0  0  2  2  1  2  2  2  0  0  9  1  0  1  0  0  0  2  1  1  1  1  1  0  5 16  1  0  0  1  2  1  1  0
TM-69:   1  3  1  0  1  1  3  8  0  1  1  1  1  1  1  1  1  0  1  1 10  1  1  0  1  1  1  1  0  6  1  1  1  1
TM-98:   1  0  0  1  6 22  0  0  0  0  2  2  2  0  2  2 10  0  2  2  1  5  3  1  1  2  1  0  8  0  0  0  3
TM-22:   3  2  9  17  4  6  1  0  0  1  0  1  1  14  8  36  49  31 124

   ID: 153  1  3  2  1  1  0  2  3  2  2  7  0  0  0  0  7  1  1  1  1  1  1  1  1  1  1  1 11  3  1  1  1
TM-41:   0  1  4  1  1  0  2  2  0  0  6  1  1  1  0  1  0  4  1  1  1  1  0  0  4 14  1  0  0  0  1  0  1  1
TM-69:   1  3  1  0  1  1  3  7  1  0  1  1  1  1  1  1  1  0  1  1 10  1  1  1  1  1  0  1  1  7  1  1  1  0
TM-98:   1  0  0  1  5 22  1  1  1  3  2  2  2  2  2  2 12  2  0  3  3  8  2  1  3  3  3  0 12  1  1  2  3
TM-22:   3  6  12  24  4  2  0  0  0  0  1  1  0  8  17  39  55  28 139

   ID: 154  1  3  2  1  1  0  2  3  2  2  7  1  2  2  5 12  1  1  1  1  1  1  1  1  1  1  1 11  4  1  1  0
TM-41:   0  1  3  2  1  2  2  2  0  0  9  1  1  1  0  0  0  3  1  1  0  0  0  0  2 14  1  0  0  1  2  1  1  1
TM-69:   1  4  1  0  1  1  3  9  1  1  1  1  1  1  1  1  1  1  1  1  1 12  1  1  1  0  1  1  1  1  7  1  1  1  1
TM-98:   1  1  0  1  7 26  1  1  1  3  2  2  2  2  2  2 12  2  1  0  1  4  2  3  3  3  3  2 16  1  1  2  3
TM-22:   3  6  8  20  4  8  1  0  1  1  1  1  0  17  21  44  55  35 155

   ID: 155  2  4  2  1  1  1  3  3  2  2  7  1  0  1  2  9  1  1  1  1  1  1  1  1  1  1  1 11  4  1  1  0
TM-41:   0  1  3  2  2  2  2  2  2  1 13  1  0  1  1  0  2  5  1  1  1  1  1  1  6 24  0  0  0  0  0  1  1  1
TM-69:   1  4  1  1  1  1  4  8  1  1  1  1  0  1  0  1  1  1  1  1 10  1  1  1  1  1  0  1  1  7  1  1  1  1
TM-98:   1  0  1  1  7 24  1  1  1  3  2  2  2  2  2  2 12  2  1  1  2  6  3  3  3  3  4  2 18  1  1  2  3
TM-22:   3  6  12  24  4  6  1  1  1  0  0  1  1  15  23  46  56  41 166
```

```
    ID: 156 2 4 2 1 1 0 2 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 1 0 2 2 2 0  9 1 1 1 0 1 2 6 1 1 1 1 1 1 6 21 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 0 1 1 1 1 7 1 0 1 1
ITM-98: 1 1 1 1 7 26 1 0 1 2 2 2 2 2 2 2 12 4 3 1 5 13 3 2 3 3 4 2 17 1 1 2 3
ITM-22: 3  6  12  24  4  8 1 1 1 1 1 1 1  19  21  51  64  42 178

    ID: 157 1 4 2 1 1 0 2 3 2 2 7 1 2 2 5 12 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 1 1 2 2 1 0  9 1 1 1 0 0 0 3 1 1 1 1 0 0 4 16 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 0 0 1 6 26 1 0 1 2 2 2 2 0 2 2 10 6 6 3 2 17 2 2 3 0 1 3 11 1 0 1 3
ITM-22: 3  6  11  23  4  6 1 1 1 1 0 1 1  16  14  47  66  38 165

    ID: 158 1 3 2 1 1 0 2 3 2 2 7 1 2 2 5 12 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 2 0 2 2 2 0 0  8 1 0 1 0 0 0 2 1 1 1 1 0 0 4 14 0 0 0 0 0 1 0 1
ITM-69: 0 2 1 0 1 1 3  5 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 1 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 1 1 8 27 1 0 1 2 2 2 2 2 2 2 12 3 1 1 2  7 2 3 3 3 3 4 18 1 1 2 3
ITM-22: 0  6  12  21  4  8 1 0 1 1 1 1 1  18  22  45  59  31 157

    ID: 159 2 3 2 1 1 1 3 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 1 1 1 2 1 0 0  6 1 0 1 0 0 0 2 1 1 0 0 0 0 2 10 0 0 0 0 0 1 0 0
ITM-69: 1 2 0 0 1 1 2  4 1 1 1 1 1 1 1 0 1 1 1 1 11 1 0 0 0 1 1 1 1 5 0 0 1 1
ITM-98: 0 0 1 1 4 20 0 0 1 1 1 1 2 0 2 0  6 1 0 1 2  4 2 2 0 0 0 0  4 1 0 1 3
ITM-22: 0  6  4  13  4  8 1 0 0 1 0 1 0  15  6  36  44  19 105

    ID: 160 2 3 2 1 1 0 2 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 0 1 1 1 10 2 1 1 0
ITM-41: 0 1 3 2 1 2 2 2 0 0  9 1 1 1 0 0 0 3 0 0 0 0 0 0 0 12 1 0 0 0 1 0 1 1
ITM-69: 0 2 0 0 1 0 1  4 0 0 1 1 0 0 1 1 1 0 1 1  7 1 0 1 1 1 0 1 1 6 1 0 1 1
ITM-98: 1 0 1 1 6 19 0 1 1 2 2 2 0 2 2 0  8 2 0 0 0  2 3 3 0 3 1 0 10 1 0 1 3
ITM-22: 3  6  10  22  4  8 1 1 0 1 1 1 0  17  13  44  41  21 119

    ID: 161 1 4 2 1 1 0 2 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 1 0 11 1 1 1 1 0 0 4 1 1 1 1 1 0 5 20 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 0 1 0 2  8 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 0 0 1
ITM-98: 1 0 1 1 5 25 1 0 1 2 2 2 2 2 2 2 12 0 5 2 1  8 3 3 3 3 3 4 19 1 1 2 3
ITM-22: 3  6  12  24  4  8 1 0 1 1 0 0 1  16  23  49  58  38 168

    ID: 162 2 1 2 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 0 1 1 1 10 0 1 1 0
```

```
ITM-41: 0 1 3 1 1 0 2 0 0 0  4 0 0 0 0 0 0 0 1 1 0 0 0 0 2  6 1 0 0 0 1 0 1 0
ITM-69: 0 1 0 0 1 1 2  4 1 0 1 1 0 1 1 1 0 1 1 1  9 0 0 0 0 0 0 1 0 1 1 0 1 1
ITM-98: 0 0 0 0 3 13 1 1 1 3 0 0 0 0 0 0  0 0 0 0 1  1 2 1 2 0 0 0  5 0 0 0 3
ITM-22: 3  6   9  21   4   0 0 0 0 0 0 0 0   4   8  28  26  17  79

    ID: 163 2 1 2 0 0 0 0 3 2 2 7 0 0 0 0  7 0 0 0 0 0 0 0 0 0 0 0  0 1 1 1 1
ITM-41: 1 1 5 2 0 0 2 2 0 0  6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  6 0 0 0 0 0 0 0 0
ITM-69: 0 0 0 0 1 1 2  2 1 0 1 0 0 0 1 0 0 0 1 0  4 1 1 0 0 1 0 1 0 4 1 1 1 1
ITM-98: 1 1 0 1 7 15 0 0 0 0 0 0 0 0 0 0  0 4 0 1 1  6 0 0 0 0 0 0  0 0 0 0 3
ITM-22: 0  6   5  14   4  -4 1 1 0 0 0 0 1   3   0  23  21  15  59

    ID: 164 2 1 2 1 1 0 2 3 2 1 6 0 0 0 0  6 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 1 0 1 2 1 0 0  5 1 0 0 0 0 0 1 1 1 0 0 0 0 2  8 1 0 0 1 2 1 1 0
ITM-69: 1 3 0 0 1 1 2  7 1 1 1 0 1 0 1 1 1 0 1 1  9 1 0 1 1 0 0 1 1 5 1 1 1 1
ITM-98: 1 1 0 1 7 21 0 0 1 1 2 0 0 0 2 0  4 4 2 1 2  9 3 3 2 3 2 0 13 1 1 2 3
ITM-22: 3  2  11  19   4  -4 1 0 0 0 0 0 0   1  16  26  47  21 110

    ID: 165 2 3 2 1 1 0 2 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 2 1 2 2 0 0  9 1 0 1 0 1 0 3 1 1 1 1 0 0 4 16 1 1 0 0 2 1 1 1
ITM-69: 0 3 0 0 1 1 2  7 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 0 0 1 6 26 1 1 1 3 2 2 2 2 2 2 12 4 3 2 2 11 3 3 3 3 4 2 18 1 0 1 3
ITM-22: 3  6  11  23   4   8 1 1 1 0 0 1 1  17  22  48  62  33 165

    ID: 166 2 2 2 1 1 0 2 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 2 2 2 1 2 1 12 1 1 1 0 0 0 3 1 1 1 0 0 0 3 18 1 0 0 1 2 1 1 1
ITM-69: 1 4 0 0 1 1 2  8 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 0 1 1 6 1 1 1 1
ITM-98: 0 0 1 1 6 24 0 1 1 2 2 2 2 2 2 0 10 3 0 3 3  9 3 3 3 2 4 4 19 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 1 0 1 1 1  18  23  50  56  37 166

    ID: 167 2 2 2 1 0 0 1 3 2 1 6 0 0 0 0  6 1 1 1 1 1 1 1 0 1 1 1 10 2 1 1 1
ITM-41: 0 1 4 2 2 2 2 1 0 0  9 1 0 0 0 0 0 1 1 1 1 0 0 0 3 13 1 0 0 0 1 1 1 1
ITM-69: 1 4 0 0 1 0 1  6 0 0 1 0 1 0 0 1 0 1 1 0  5 1 1 0 1 1 1 1 0 6 1 1 1 1
ITM-98: 1 0 1 1 7 18 1 1 0 2 2 2 2 2 2 0 10 1 1 0 4  6 1 2 0 2 4 3 12 1 0 1 3
ITM-22: 0  6  10  19   4   8 1 0 1 1 1 1 0  17  15  42  45  25 127

    ID: 168 1 3 3 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 0 1 1 0 1 1  9 2 1 1 0
ITM-41: 0 1 3 2 1 2 2 2 1 0 10 1 1 1 0 0 0 3 1 1 0 0 0 0 2 15 1 0 0 1 2 0 1 1
```

```
ITM-69: 1 3 1 0 1 1 3  8 1 1 1 0 1 1 1 1 1 1 1 0 10 1 0 1 1 1 0 1 0 5 1 1 1 1
ITM-98: 1 0 1 1 7 22 1 0 0 1 0 0 0 0 2 0  2 3 1 2 3  9 3 1 0 3 4 3 14 1 0 1 3
ITM-22: 0  3   9  15   4   8 0 0 0 1 0 1 0  14  16  34  44  31 125

    ID: 169 2 1 1 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 0 1 4 2 1 0 0 0 0 0  3 1 1 0 0 0 0 2 1 1 0 0 0 0 2  7 1 0 0 1 2 0 1 1
ITM-69: 1 3 0 0 1 0 1  6 1 1 1 1 0 1 1 1 1 1 1 1 11 1 1 1 1 0 1 1 0 6 1 1 1 1
ITM-98: 1 1 1 0 7 24 1 1 1 3 0 2 2 1 2 0  7 2 0 0 0  2 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  3   9  18   4   8 1 1 1 0 1 0 1  17  25  42  46  21 134

    ID: 170 2 1 1 1 0 0 1 3 0 0 3 0 0 0 0  3 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
ITM-41: 0 1 3 2 1 1 2 1 0 0  7 1 0 0 0 0 0 1 1 1 0 0 0 0 2 10 0 0 0 0 0 1 0 0
ITM-69: 0 1 0 0 1 1 2  3 1 0 1 0 0 0 1 1 1 1 1 1  8 0 0 0 1 1 0 1 0 3 1 1 1 1
ITM-98: 1 1 1 0 7 18 0 1 1 2 2 0 0 0 0 0  2 0 0 0 0  0 2 0 0 0 0 0  2 0 0 0 3
ITM-22: 3  6   9  21   4   0 0 0 0 0 0 0 0  4   4  30  32  16  82

    ID: 171 1 1 1 1 0 0 1 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 0
ITM-41: 0 1 3 2 2 0 2 0 0 0  6 1 0 0 0 0 0 0 1 1 1 0 0 0 0 2  9 1 0 0 0 1 0 0 0
ITM-69: 0 0 0 0 0 0 0  1 0 0 1 1 1 0 0 0 1 1 1 1  7 0 1 0 1 0 1 1 0 4 0 0 0 1
ITM-98: 1 1 1 0 4 15 1 1 0 2 2 0 0 2 0 0  4 1 0 0 0  1 2 1 3 1 1 0  8 1 0 1 3
ITM-22: 3  6   6  18   8   0 0 0 0 0 0 0 0  8  11  30  32  17  90

    ID: 172 2 2 1 1 1 0 2 3 2 2 7 1 1 0 2  9 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 0 1 4 2 2 1 2 0 1 1  9 1 0 1 0 0 0 2 1 1 1 1 0 0 4 15 1 1 1 0 3 1 1 1
ITM-69: 0 3 1 1 1 0 3  9 1 1 1 1 1 1 1 1 1 0 1 1 11 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 0 1 7 26 1 1 1 3 1 2 2 2 2 0  9 0 1 0 2  3 1 1 3 0 0 0  5 1 1 2 3
ITM-22: 3  6  12  24   4  -1 0 0 0 0 0 0 0  3  10  34  51  33 128

    ID: 173 1 1 1 1 1 1 3 3 1 0 4 1 2 0 3  7 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 2 2 2 2 0 1 1 10 1 0 0 0 0 0 0 1 1 0 0 0 0 2 13 0 0 0 0 0 0 0 0
ITM-69: 0 0 0 0 1 0 1  1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 0 1 7 27 0 0 1 1 2 2 0 2 0 2  8 1 3 1 0  5 1 0 0 0 0 0  1 1 0 1 3
ITM-22: 3  6   8  20   4   8 1 1 1 1 1 1 1  19   3  45  54  21 123

    ID: 174 1 2 1 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 0 2 2 2 0 2 2 1 1 10 1 0 0 0 0 0 1 1 1 0 0 0 0 2 13 0 0 1 0 1 1 1 1
ITM-69: 0 3 1 0 0 1 2  6 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 0 1 1 6 1 1 1 1
```

```
ITM-98: 1 1 1 1 8 26 1 0 1 2 2 2 2 2 2 0 10 3 1 2 2  8 1 0 0 0 0 0  1 1 1 2 3
ITM-22: 3  6  12  24   4  -1 0 0 0 0 0 1 1   5   5  34  57  27 123

    ID: 175 1 1 1 1 0 1 2 3 1 1 5 1 0 0 1  6 1 1 1 1 1 1 1 1 1 1 1 11 2 0 1 0
ITM-41: 0 0 1 2 2 1 2 0 1 1  9 1 0 0 0 0 0 1 1 1 0 0 0 0 2 12 1 1 1 1 4 0 0 0
ITM-69: 0 0 0 0 1 1 2  6 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 0 7 1 1 1 1
ITM-98: 0 1 1 0 6 25 1 1 1 3 2 2 2 2 2 0 10 3 0 1 2  6 1 1 3 2 4 0 11 1 1 2 3
ITM-22: 3  6   5  17   0  -1 0 0 0 0 0 0 0 0  -1  16  19  54  24 113

    ID: 176 2 1 1 1 1 0 2 3 2 1 6 0 0 0 0  6 1 1 1 1 1 1 1 1 1 1 1 11 3 0 1 0
ITM-41: 0 0 1 2 1 1 2 0 0 0  6 1 0 0 0 0 0 0 1 1 1 0 0 0 0 2  9 0 0 0 0 0 0 1 1 1
ITM-69: 0 3 0 0 1 1 2  5 1 0 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 1 0 1 1 0 6 1 1 1 1
ITM-98: 1 0 1 1 6 25 1 1 1 3 2 0 0 2 0 0  4 1 0 0 1  2 3 2 2 2 3 0 12 1 1 2 3
ITM-22: 3  6   4  16   4   0 1 1 1 1 1 1 1  11  17  31  44  20 112

    ID: 177 1 3 1 1 1 0 2 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 2 1 2 2 1 0 10 1 1 1 1 0 0 4 1 1 1 1 0 0 4 18 1 1 1 1 4 1 1 1
ITM-69: 1 4 1 1 1 1 4 12 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 0 1 1 1 6 1 1 1 1
ITM-98: 1 0 1 1 7 25 0 0 1 1 1 2 2 2 2 0  9 4 3 2 0  9 3 3 3 3 4 4 20 1 0 1 3
ITM-22: 3  0   8  14   4   8 1 1 1 1 1 1 1  19  22  41  56  40 159

    ID: 178 1 1 1 1 1 1 3 3 0 1 4 0 0 0 0  4 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 2 1 1 2 0 0 0  6 1 0 0 0 0 0 0 1 1 1 0 0 0 0 2  9 1 0 0 0 1 1 0 1
ITM-69: 0 2 1 1 0 0 2  5 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 0 1 1 7 27 1 0 1 2 2 2 2 2 2 2 12 0 1 2 1  4 2 2 2 2 3 2 13 1 1 2 3
ITM-22: 3  6   6  18   4   0 1 0 1 1 1 0 1   9  17  33  57  18 125

    ID: 179 2 1 1 0 1 0 1 3 1 2 6 0 0 0 0  6 1 1 1 1 1 1 1 0 0 0 1  8 1 1 1 0
ITM-41: 0 0 2 1 1 1 2 0 0 0  5 1 0 0 0 0 0 0 1 1 1 0 0 0 0 2  8 0 0 0 0 0 0 1 1 0
ITM-69: 0 2 1 0 1 1 3  5 0 0 1 1 1 0 1 1 1 1 1 1  9 1 1 0 1 1 1 1 1 7 1 1 1 1
ITM-98: 0 0 1 1 6 22 0 1 1 2 0 0 0 0 0 0  0 0 0 0 1  1 1 0 1 1 1 0  4 0 0 0 3
ITM-22: 3  0   1   7   4   0 1 0 0 1 1 0 0   7   6  17  32  19  74

    ID: 180 2 1 1 1 1 0 2 3 2 0 5 1 0 0 1  6 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 0
ITM-41: 0 1 3 2 2 0 0 0 0 0  4 1 0 0 0 0 0 0 1 1 1 0 0 0 0 2  7 0 0 0 0 0 0 1 0 1
ITM-69: 0 2 0 0 1 1 2  4 1 1 1 0 1 0 1 0 1 1 1 1  9 1 0 0 1 0 1 1 1 5 1 0 1 1
ITM-98: 1 1 1 1 7 21 1 0 1 2 0 2 1 2 0 0  5 0 0 0 0  0 2 2 3 2 0 0  9 1 0 1 3
```

```
ITM-22: 0  6  12  24   0   0 0 0 0 0 1 1 0   2  12  30  39  17  98

    ID: 181 1 2 1 1 1 0 2 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 1 1 12 1 1 1 0 1 0 4 1 1 0 0 0 0 2 18 0 1 0 1 2 1 1 1
ITM-69: 0 3 1 1 1 0 3  8 1 1 1 1 1 1 1 1 1 0 1 1 11 1 1 0 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 1 1 8 26 1 1 1 3 2 0 2 2 2 2 10 3 3 4 3 13 2 0 2 0 3 4 11 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19  16  51  62  36 165

    ID: 181 1 2 1 1 1 1 3 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 1 1 1 11 1 1 1 0 0 0 3 1 1 1 1 0 0 4 18 1 1 1 0 3 0 0 1
ITM-69: 0 1 1 1 1 1 4  8 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 28 1 1 1 3 2 2 2 1 2 2 11 1 3 2 1  7 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  11  23   4   8 1 1 1 1 1 1 1  19  25  51  60  34 170

    ID: 182 1 2 1 1 1 1 3 3 2 2 7 0 1 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 2 2 2 0 1 1 10 1 1 0 0 0 0 2 1 1 1 0 0 0 3 15 1 1 0 0 2 1 1 0
ITM-69: 0 2 1 0 1 1 3  7 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 0 7 27 1 1 1 3 2 2 1 1 2 0  8 0 1 0 1  2 1 3 2 2 4 3 15 1 1 2 3
ITM-22: 3  6   9  21   4   8 1 0 1 1 0 1 1  17  20  46  51  30 147

    ID: 183 2 2 1 1 1 0 2 3 2 1 6 1 2 0 3  9 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 2 2 2 2 0 1 1 10 0 0 0 0 0 0 0 1 1 1 0 0 0 3 13 0 1 0 0 1 1 0 0
ITM-69: 0 1 1 0 1 1 3  5 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 0 1 1 6 1 1 1 1
ITM-98: 1 0 1 1 7 25 0 1 1 2 2 2 2 2 2 0 10 1 1 1 4  7 1 2 2 0 0 0  5 1 0 1 3
ITM-22: 3  6  10  22   4   8 1 1 0 1 0 1 1  17   8  45  55  27 135

    ID: 184 2 2 1 1 1 0 2 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 1 1 1 1
ITM-41: 0 1 4 2 1 1 2 0 1 1  8 1 0 1 0 0 0 2 1 1 0 0 0 0 2 12 1 0 0 0 1 1 0 1
ITM-69: 0 2 0 0 1 1 2  5 1 1 1 0 1 1 0 1 1 1 1 1 10 1 1 0 1 1 1 1 0 6 1 1 1 1
ITM-98: 1 0 1 0 6 22 1 1 1 3 1 2 2 2 2 0  9 1 0 1 1  3 3 3 3 0 4 0 13 1 1 2 3
ITM-22: 3  0   0   6   4   0 1 1 0 1 0 0 1   8  18  19  47  27 111

    ID: 185 1 3 1 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 2 2 2 2 1 0 0  9 1 1 1 1 0 0 4 1 1 0 0 0 0 2 15 1 1 1 1 4 1 0 1
ITM-69: 0 2 1 0 0 0 1  7 1 1 1 0 0 1 1 1 1 1 1 1 10 0 1 1 1 1 1 1 1 7 1 0 1 1
ITM-98: 1 1 1 1 7 24 1 0 0 1 2 2 2 0 2 0  8 1 0 1 1  3 1 3 3 0 3 2 12 1 0 1 3
ITM-22: 0  0   0   3   4   8 1 0 1 1 1 1 1  18  14  27  48  30 119
```

```
    ID: 186  2  3  1  1  1  1  3  3  2  2  7  1  0  0  1   8  1  1  1  1  1  1  1  1  1  1  1  11  3  1  1  1
ITM-41:  0  1  4  2  2  2  2  2  1  0  11  1  1  1  1  0  0  4  1  1  0  0  0  0  2  17  1  0  1  1  3  1  1  1
ITM-69:  0  3  1  1  1  1  4  10  1  1  1  0  1  1  1  1  1  1  1  1  1  11  1  1  1  1  1  0  1  1  7  1  1  1  1
ITM-98:  1  1  1  1  8  26  0  1  1  2  2  2  2  0  2  0   8  3  1  2  3   9  3  3  3  2  4  3  18  1  1  2  3
ITM-22:  3   6   12   24    4    8  1  1  1  1  1  1  1   19   22   50   57   35  164

    ID: 187  2  3  1  1  1  1  3  3  2  2  7  1  2  4  7  14  1  1  1  1  1  1  1  1  1  1  1  11  4  1  1  1
ITM-41:  1  1  5  2  2  2  2  2  2  1  13  1  1  1  1  1  0  5  1  1  1  0  0  0  3  21  1  1  1  1  4  1  1  1
ITM-69:  1  4  1  1  1  1  4  12  1  1  1  0  1  1  1  1  1  1  1  1  1  11  1  0  0  1  1  1  0  1  5  1  1  1  1
ITM-98:  1  0  1  1  7  23  1  1  1  3  2  2  2  2  2  1  11  1  1  1  2   5  3  3  0  3  0  4  13  1  1  2  3
ITM-22:  3   6   12   24    4    8  1  1  1  1  1  1  1   19   18   52   53   47  170

    ID: 188  1  3  1  1  1  1  3  3  2  2  7  0  0  0  0   7  1  1  1  1  1  1  1  1  1  1  1  11  3  1  1  1
ITM-41:  0  1  4  2  2  1  2  2  1  0  10  1  0  1  0  0  0  2  1  1  1  0  0  0  3  15  1  1  1  0  3  1  1  1
ITM-69:  1  4  1  1  1  1  4  11  1  1  1  0  1  1  1  1  1  1  1  1  1  11  1  1  0  1  0  1  1  1  6  1  1  1  0
ITM-98:  1  1  1  1  7  24  0  1  0  1  2  2  2  2  2  2  12  4  1  2  1   8  3  3  3  3  4  4  20  1  1  2  3
ITM-22:  3   6   12   24    4    8  1  1  0  1  1  1  1   18   23   49   58   33  163

    ID: 189  1  4  1  1  1  0  2  3  2  2  7  1  0  4  5  12  1  1  1  1  1  1  1  1  1  1  1  11  3  1  1  0
ITM-41:  0  1  3  2  2  2  2  1  2  1  12  1  0  1  1  0  2  5  1  1  1  1  1  0  5  22  1  0  0  1  2  1  0  1
ITM-69:  1  3  1  1  1  1  4   9  1  1  1  1  1  1  1  1  1  1  1  1  1  12  1  1  0  1  1  0  1  0  5  1  1  1  1
ITM-98:  1  1  0  1  7  24  0  1  1  2  2  2  2  2  2  2  12  4  0  2  3   9  3  2  3  3  3  3  17  1  1  2  3
ITM-22:  3   6   10   22    4    8  1  1  0  1  1  1  1   18   21   46   58   43  168

    ID: 190  2  4  1  1  1  0  2  3  2  2  7  0  0  0  0   7  1  1  1  1  1  1  1  1  1  1  1  11  4  1  1  1
ITM-41:  0  1  4  2  2  2  2  2  2  2  14  1  1  1  1  1  3  8  1  1  1  1  1  0  5  27  1  0  0  1  2  1  1  1
ITM-69:  1  4  1  1  1  1  4  10  1  1  1  1  1  1  1  1  1  1  1  1  1  12  1  1  0  1  1  1  1  0  6  1  1  1  1
ITM-98:  1  0  1  1  7  25  0  1  1  2  2  2  2  2  2  2  12  0  6  2  3  11  3  3  3  3  4  2  18  1  1  2  3
ITM-22:  3   6    9   21    4    8  1  0  1  1  1  1  1   18   22   47   61   44  174

    ID: 191  1  4  1  1  1  1  3  3  2  2  7  1  0  1  2   9  1  1  1  1  1  1  1  1  1  1  1  11  3  1  1  1
ITM-41:  0  1  4  2  2  2  2  2  1  0  11  1  1  1  0  1  3  7  1  1  1  1  0  0  4  22  0  1  1  1  3  1  1  1
ITM-69:  1  4  1  1  1  1  4  11  1  1  1  1  1  1  1  1  1  1  1  1  1  12  1  1  1  1  1  0  1  0  6  1  1  1  1
ITM-98:  1  0  0  1  6  24  1  0  0  1  2  2  2  1  2  2  11  3  0  3  3   9  2  2  2  3  1  3  13  0  0  0  3
ITM-22:  3   6   11   23    4    8  1  0  1  0  0  1  1   16   14   46   58   42  160
```

```
    ID: 192 2 5 1 1 1 0 2 3 2 2 7 1 0 4 5 12 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 1 2 13 1 1 1 1 1 3 8 1 1 1 1 1 1 6 27 1 1 1 1 4 1 1 1
ITM-69: 1 4 0 1 1 1 3 11 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 0 1 7 27 1 1 1 3 2 2 2 2 0 2 10 6 3 3 4 16 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24  4  8 1 1 1 1 1 1 1  19  25  52  66  50 193

    ID: 193 1 5 1 1 1 1 3 3 2 2 7 1 2 4 7 14 1 1 1 1 1 0 1 0 0 1 1  8 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 2 2 15 1 1 1 1 1 2 7 1 1 1 1 1 1 6 27 1 1 1 1 4 1 1 1
ITM-69: 1 4 1 1 1 1 4 12 1 1 1 1 1 1 0 0 1 1 1 1 10 1 1 1 1 1 1 1 1 8 1 1 1 0
ITM-98: 1 1 1 1 7 25 1 1 1 3 2 2 0 2 2 2 10 5 5 0 2 12 3 3 3 3 4 2 18 1 0 1 3
ITM-22: 3  6  12  24  4  8 1 0 1 1 1 1 1  18  22  51  58  53 184

    ID: 194 1 5 1 1 1 0 2 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 0
ITM-41: 0 1 3 2 2 2 2 2 1 1 12 1 1 1 1 1 3 8 1 1 1 1 1 1 6 26 0 1 1 1 3 1 1 1
ITM-69: 1 4 1 1 1 1 4 11 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 0 1 7 26 1 1 1 3 2 2 2 2 2 0 10 4 3 1 4 12 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  11  23  4  8 1 1 1 0 1 1 1  18  25  48  61  51 185

    ID: 195 2 4 1 1 1 1 3 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 0 1 4 2 1 2 2 2 1 1 11 1 1 1 1 1 2 7 1 1 1 1 1 1 6 24 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 28 1 1 1 3 2 2 2 0 2 2 10 4 4 2 3 13 3 3 3 3 4 3 19 1 0 1 3
ITM-22: 3  6  12  24  4  8 1 1 1 1 1 1 1  19  23  50  65  48 186

    ID: 196 1 4 1 1 1 1 3 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 1 2 2 2 2 1 12 1 1 1 0 0 0 3 1 1 1 0 0 0 3 18 0 0 0 0 0 1 1 1
ITM-69: 1 4 1 1 1 1 4  8 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 1 1 0 6 1 1 1 1
ITM-98: 1 1 0 1 7 25 1 1 1 3 2 2 2 2 2 0 10 2 1 2 2  7 3 3 3 3 3 3 18 1 1 2 3
ITM-22: 3  6  10  22  4  -4 0 0 1 0 0 1 1  3  23  33  56  40 152

    ID: 197 2 4 1 1 1 1 3 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 2 2 14 1 1 1 1 1 3 8 1 1 1 1 1 1 6 28 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 0 1 7 1 1 1 1
ITM-98: 1 1 0 1 7 26 1 1 1 3 2 2 2 2 1 2 11 3 1 2 3  9 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24  4  8 1 1 1 1 1 1 1  19  25  52  60  52 189

    ID: 198 1 5 1 1 1 1 3 3 2 0 5 1 2 0 3  8 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
```

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ITM-41: 0 1 4 2 2 2 2 2 1 1 12 1 1 1 1 1 2 7 1 1 1 1 1 0 5 24 1 1 1 1 4 1 1 1
ITM-69: 1 4 1 1 1 1 4 12 1 1 1 1 1 1 1 0 1 1 1 1 11 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 27 1 1 1 3 2 2 2 1 2 2 11 3 1 2 3  9 3 3 3 3 0 0 12 1 1 2 3
ITM-22: 3  6  12  24  4  8 1 1 1 1 1 1 1  19  17  50  61  44 172

    ID: 199 1 4 1 1 1 1 3 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 1 2 2 2 1 0 10 1 1 1 1 1 1 6 1 1 1 1 1 1 6 22 1 0 1 0 2 0 1 1
ITM-69: 1 3 0 1 1 1 3  8 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 28 1 1 1 3 2 2 2 2 2 2 12 4 2 1 2  9 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24  4  8 1 0 1 1 1 1 1  18  25  50  63  40 178

    ID: 200 2 5 1 1 1 1 3 3 2 2 7 1 0 2 3 10 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 1 1 12 1 1 1 1 1 3 8 1 1 1 1 1 1 6 26 1 1 1 1 4 1 1 1
ITM-69: 1 4 1 1 1 1 4 12 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 0 1 7 27 1 1 1 3 2 2 2 2 2 2 12 1 3 1 3  8 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  11  23  4  8 1 0 1 1 1 1 1  18  25  48  61  48 182

    ID: 201 1 5 1 1 1 0 2 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 1 2 1 1 1 10 1 1 1 0 0 0 3 1 1 1 1 0 0 4 17 1 0 0 0 1 1 1 1
ITM-69: 1 4 1 1 1 1 4  9 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 0 1 1 1 1 6 1 1 1 1
ITM-98: 1 1 1 1 8 26 1 1 1 3 2 2 0 2 2 2 10 4 2 1 2  9 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24  4  8 1 0 1 1 1 1 1  18  25  51  58  40 174

    ID: 202 1 5 1 1 1 1 3 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 2 1 13 1 1 1 1 1 3 8 1 1 1 1 1 1 6 27 1 0 0 0 1 1 1 1
ITM-69: 1 4 1 1 1 1 4  9 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 0 1 7 27 1 1 1 3 2 2 2 2 2 2 12 4 4 2 3 13 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  11  23  4  8 1 1 1 1 1 1 1  19  25  51  66  47 189

    ID: 203 1 4 1 1 1 0 2 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 1 1 12 1 1 1 1 1 2 7 1 1 1 1 1 0 5 24 0 1 1 0 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 28 1 1 1 3 0 1 1 1 1 1  5 3 4 1 3 11 3 3 3 3 4 3 19 1 1 2 3
ITM-22: 3  6  12  24  4  8 1 1 1 1 1 1 1  19  24  51  57  48 180

    ID: 204 2 5 1 1 1 0 2 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 2 1 13 1 1 1 1 1 1 6 1 1 1 1 1 0 5 24 1 1 1 0 3 1 1 1
```

```
ITM-69: 1 4 1 1 1 1 4 11 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 0 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 1 1 8 27 1 1 1 3 2 2 0 2 1 2  9 4 5 2 4 15 3 3 3 3 3 4 19 1 1 2 3
ITM-22: 3  3   3  12   4   8 1 1 1 1 1 1 1  19  24  40  64  49 177

    ID: 205 1 5 1 1 1 0 2 3 2 2 7 1 2 2 5 12 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 0 0 10 1 1 1 0 1 0 4 1 1 1 1 1 0 5 19 1 1 0 0 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 28 0 0 0 0 2 2 2 2 1 0  9 4 5 2 5 16 3 3 3 3 3 3 18 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19  20  50  66  41 177

    ID: 206 2 4 1 1 1 0 2 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 2 2 2 1 0 0  9 1 1 1 0 0 0 3 1 1 1 1 1 1 6 18 0 0 0 0 0 1 1 1
ITM-69: 1 4 1 1 1 1 4  8 1 1 1 0 1 1 1 1 1 1 1 1 11 1 1 0 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 0 0 1 6 24 1 1 1 3 2 2 0 2 2 0  8 3 1 2 5 11 3 3 3 3 3 2 17 1 1 2 3
ITM-22: 3  6  10  22   3   8 1 1 1 1 1 1 1  18  22  48  56  40 166

    ID: 207 2 5 1 1 1 0 2 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 2 2 2 2 2 2 2 14 1 1 1 1 0 2 6 1 1 1 1 1 0 5 25 1 1 1 0 3 1 1 1
ITM-69: 1 4 1 1 1 1 4 11 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 0 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 1 1 8 27 1 1 1 3 2 0 2 2 2 0  8 1 2 0 1  4 3 2 0 0 3 1  9 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19  14  49  52  47 162

    ID: 208 2 4 1 1 1 0 2 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 1 2 2 2 2 2 13 1 1 1 1 1 2 7 1 1 1 1 1 1 6 26 1 0 0 1 2 1 0 1
ITM-69: 1 3 1 1 1 1 4  9 1 0 1 1 1 1 1 1 0 1 1 1 10 1 1 0 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 0 1 7 24 1 1 1 3 2 2 2 0 2 2 10 3 0 1 6 10 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24   3   8 1 1 1 1 1 1 1  18  25  50  57  49 181

    ID: 209 2 5 1 1 1 0 2 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 1 0 0  9 1 1 1 0 1 0 4 1 1 1 1 1 1 6 19 1 1 1 1 4 1 0 1
ITM-69: 1 3 1 1 1 1 4 11 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 0 1 1 1 1 1 6 1 1 1 1
ITM-98: 1 0 1 1 7 25 1 1 1 3 2 2 2 2 2 2 12 4 2 2 6 14 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24   0   8 1 0 1 1 1 1 1  14  25  47  64  41 177

    ID: 210 2 4 1 1 1 1 3 3 2 2 7 1 0 4 5 12 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 1 2 2 13 1 1 1 1 0 2 6 1 1 1 1 1 1 6 25 0 0 0 0 0 1 1 1
ITM-69: 1 4 1 1 1 1 4  8 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
```

```
TM-98: 1 1 0 1 7 27 1 1 1 3 2 2 1 1 2 2 10 0 0 0 0  0 0 0 0 0 0 0  0 0 0 0 3
TM-22: 3  6  12  24   4   8 1 0 1 1 1 1 1  18   3  51  51  45 150

   ID: 211 1 5 1 1 1 1 3 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
TM-41: 1 1 5 2 2 2 2 2 2 2 14 1 1 1 1 1 0 5 1 1 1 1 0 0 4 23 0 1 1 1 3 0 1 1
TM-69: 1 3 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 1 1 1 1 1 1 7 1 0 1 1
TM-98: 1 1 1 1 7 26 1 1 1 3 2 2 2 0 2 2 10 5 4 5 3 17 3 3 3 3 3 4 19 1 1 2 3
TM-22: 3  6  12  24   4   8 1 0 1 1 1 1 1  18  24  51  67  47 189

   ID: 212 2 3 1 1 1 0 2 3 1 2 6 1 2 2 5 11 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
TM-41: 0 1 4 2 2 1 2 1 1 0  9 1 0 1 0 0 0 2 1 1 1 1 0 0 4 15 1 1 0 0 2 1 1 1
TM-69: 1 4 1 1 1 1 4 10 0 0 1 1 1 1 1 1 1 0 1 0  8 1 1 1 1 1 1 1 1 8 1 1 1 1
TM-98: 1 1 1 1 8 24 0 0 0 0 0 2 2 2 2 2 10 1 1 2 4  8 3 0 3 0 4 3 13 1 1 2 3
TM-22: 3  1  10  17   4   8 1 0 1 1 1 0 1  17  15  40  55  36 146

   ID: 213 1 2 1 1 1 0 2 3 2 1 6 1 2 0 3  9 1 1 1 1 1 1 1 1 1 0 1 10 3 1 1 1
TM-41: 0 1 4 2 2 0 2 0 0 0  6 1 1 0 0 0 0 2 1 1 1 0 0 0 3 11 0 0 0 0 0 1 0 1
TM-69: 0 2 1 0 1 0 2  4 1 0 1 1 0 1 1 0 1 1 1 1  9 1 1 1 1 1 1 1 1 8 1 0 1 1
TM-98: 1 1 0 1 6 23 1 0 0 1 2 0 0 2 2 0  6 1 2 2 2  7 2 2 1 2 3 1 11 0 0 0 3
TM-22: 0  6  12  21   4   2 0 0 1 1 1 1 1  11  12  39  48  24 123

   ID: 214 2 4 1 1 1 0 2 3 2 2 7 1 1 0 2  9 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
TM-41: 1 1 5 2 2 2 2 2 1 1 12 1 1 1 0 0 0 3 1 1 1 1 1 0 5 20 1 0 0 1 2 1 1 1
TM-69: 1 4 1 1 1 0 3  9 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 0 1 1 6 1 1 1 1
TM-98: 1 1 0 1 7 25 1 0 0 1 2 2 2 2 2 2 12 0 4 2 4 10 3 2 3 2 4 3 17 1 1 2 3
TM-22: 0  2  12  17   4   8 1 1 1 1 1 1 1  19  20  44  60  38 162

   ID: 215 1 5 1 1 1 0 2 3 2 2 7 1 2 4 7 14 0 1 1 1 1 1 1 1 1 1 1 10 3 1 1 0
TM-41: 0 1 3 2 2 2 2 2 2 2 14 1 1 1 1 1 1 6 1 1 1 1 1 0 5 25 1 0 0 0 1 1 1 1
TM-69: 1 4 1 1 1 0 3  8 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 0 1 1 1 1 6 1 1 1 1
TM-98: 1 1 0 1 7 25 1 1 1 3 2 2 2 2 0 0  8 5 5 2 3 15 3 3 3 3 4 3 19 1 1 2 3
TM-22: 3  6  10  22   4   8 1 0 1 1 1 1 1  18  24  46  60  47 177

   ID: 216 1 4 1 1 1 1 3 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
TM-41: 1 1 5 2 2 1 2 1 1 0  9 1 0 1 0 0 0 2 1 1 1 1 1 1 6 17 1 1 0 0 2 1 1 1
TM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 0 0 0 1 1 1 4 1 1 1 1
TM-98: 1 0 1 1 7 23 0 1 1 2 2 2 2 0 2 0  8 2 0 2 1  5 3 3 0 3 4 3 16 1 1 2 3
```

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ITM-22: 3  6   2  14   4  8 1 0 1 1 1 1 1  18  20  40  50  35 145

    ID: 217 1 4 1 1 1 1 3 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 1 1 2 0 2 0  8 1 0 1 0 0 0 2 1 1 0 0 0 0 2 12 0 1 1 0 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 1 1 8 27 0 1 1 2 2 2 2 2 2 2 12 1 0 0 1  2 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19  24  52  55  33 164

    ID: 218 2 5 1 1 1 1 3 3 2 2 7 1 2 2 5 12 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 1 2 13 1 1 1 1 0 2 6 1 1 1 1 1 1 6 25 1 1 1 1 4 1 1 1
ITM-69: 1 4 1 1 1 1 4 12 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 1 1 1 8 28 1 1 1 3 2 2 2 2 2 1 11 4 2 2 4 12 3 3 3 2 4 3 18 1 1 2 3
ITM-22: 0  6  12  21   4   8 1 0 1 1 1 1 1  18  23  46  65  49 183

    ID: 219 2 5 1 1 1 1 3 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 2 2 14 1 1 1 1 1 3 8 1 1 1 1 1 1 6 28 1 1 0 0 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 0 1 1 1 7 27 1 1 1 3 2 2 2 2 0 2 10 4 2 1 4 11 3 3 3 3 4 4 20 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  15  25  47  62  52 186

    ID: 220 1 3 1 1 1 1 3 3 2 1 6 1 0 0 1  7 1 1 1 1 1 1 1 0 1 1 1 10 4 1 1 0
ITM-41: 0 1 3 2 2 2 2 2 0 0 10 1 1 0 0 0 0 2 1 1 1 1 0 0 4 16 1 1 0 1 3 1 1 1
ITM-69: 0 3 1 0 1 1 3  9 1 1 1 0 1 1 1 1 1 1 1 1 11 1 1 0 0 1 0 1 1 5 1 1 1 1
ITM-98: 1 0 1 1 7 23 1 1 0 2 1 1 1 1 2 0  6 2 2 2 2  8 0 2 0 3 2 3 10 1 0 1 3
ITM-22: 0  6  11  20   4   6 0 0 0 1 0 1 0  12  13  39  50  32 134

    ID: 221 2 2 1 1 1 1 3 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 0 1 1 1 10 4 1 1 1
ITM-41: 1 0 4 2 2 2 2 0 0 2 10 1 0 1 0 0 0 2 1 1 1 0 0 0 3 15 1 0 0 1 2 1 1 1
ITM-69: 1 4 0 0 1 1 2  8 1 0 1 0 0 1 1 1 1 1 1 1  9 1 0 1 1 1 0 1 0 5 1 1 1 1
ITM-98: 1 1 1 1 8 22 1 0 1 2 2 2 2 2 2 0 10 3 0 3 3  9 3 2 2 3 3 2 15 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 1 0 1 1 1 1  18  19  50  54  31 154

    ID: 222 2 3 1 1 1 1 3 3 2 2 7 1 1 2 4 11 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 0 1 4 2 2 1 2 0 1 0  8 1 1 1 0 0 0 3 1 1 1 0 0 0 3 14 0 1 0 0 1 1 1 0
ITM-69: 1 3 1 1 1 1 4  8 0 0 1 1 1 1 1 1 1 1 1 1 10 0 1 0 1 1 1 0 1 5 1 1 1 1
ITM-98: 1 0 1 0 6 21 0 0 0 0 2 2 2 0 2 0  8 1 0 1 0  2 3 2 3 2 3 1 14 1 1 2 3
ITM-22: 3  6   0  12   4   8 1 1 1 1 1 1 1  19  16  38  45  33 132
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```
    ID: 223 2 3 1 1 1 1 3 3 2 2 7 1 2 1 4 11 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 1 0 11 1 1 1 0 0 0 3 1 1 0 1 0 0 3 17 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 0 1 1 1 1 0 1 1 1 1 1 10 1 1 0 0 1 1 1 1 6 1 1 1 1
ITM-98: 1 0 0 1 6 22 1 1 1 3 0 0 2 0 2 0  4 2 2 0 1  5 3 3 3 3 4 2 18 1 1 2 3
ITM-22: 3  6  11  23  4  8 1 0 1 1 1 1 0  17  23  46  45  38 152

    ID: 224 2 2 1 1 1 1 3 3 2 2 7 1 1 0 2  9 1 1 1 1 1 1 1 0 1 1 1 10 4 1 1 0
ITM-41: 0 1 3 2 2 1 2 1 1 0  9 1 1 1 1 0 0 4 1 1 1 0 0 0 3 16 1 0 0 1 2 1 1 0
ITM-69: 0 2 1 1 1 0 3  7 1 0 1 1 1 0 1 1 0 1 0 1  8 1 1 1 0 1 1 1 1 7 0 1 1 1
ITM-98: 1 0 1 0 5 20 1 0 1 2 0 2 2 2 2 0  8 3 2 1 2  8 2 2 3 3 4 2 16 1 1 2 3
ITM-22: 3  6  6  18  4  4 0 0 0 0 0 0 0  8  20  33  49  32 134

    ID: 225 1 3 1 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 1 3 2 2 2 1 1 0 0  8 1 1 1 0 0 0 3 1 1 0 0 0 0 2 13 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 0 1 1 1 0 1 1 1 1 1 1 1 10 1 0 0 1 1 1 1 1 6 1 1 1 1
ITM-98: 1 1 1 1 8 24 1 0 0 1 2 2 2 2 0 0  8 1 0 2 2  5 2 1 0 0 4 0  7 1 0 1 3
ITM-22: 3  6  12  24  4  8 1 1 1 1 1 1 0  18  9  48  50  31 138

    ID: 226 1 1 1 0 0 0 0 3 0 0 3 0 0 0 0  3 1 1 1 1 1 0 1 1 0 1 1  9 1 1 1 0
ITM-41: 0 0 2 1 0 0 2 0 0 0  3 1 0 0 0 0 0 1 0 0 0 0 0 0 0  4 0 0 0 0 0 0 0 0
ITM-69: 0 0 0 0 1 0 1  1 0 0 0 0 0 0 0 0 0 0 1 0  1 0 0 0 1 0 0 0 0 1 1 1 1 1
ITM-98: 0 0 0 1 5  7 1 1 1 3 0 0 0 0 0 0  0 0 0 0 0  0 2 2 1 0 0 0  5 0 0 0 3
ITM-22: 3  3  0  9  0  2 0 0 0 0 0 0 0  2  8  14  16  8  46

    ID: 227 1 1 1 0 0 0 0 3 1 0 4 0 0 0 0  4 1 1 1 1 1 1 1 0 0 0 1  8 0 1 1 0
ITM-41: 0 1 3 2 2 1 1 0 0 0  6 0 0 0 0 0 0 0 1 1 0 0 0 0 2  8 0 0 0 0 0 0 0 0
ITM-69: 0 0 0 0 0 0 0  0 1 0 1 1 0 0 0 0 0 1 1 1  6 0 0 0 0 1 1 0 0 2 0 0 0 0
ITM-98: 1 0 0 0 1  9 0 0 0 0 0 0 0 0 0 0  0 0 0 0 0  0 0 0 0 0 0 0  0 0 0 0 3
ITM-22: 3  1  0  7  0  0 0 0 0 0 0 0 0  0  0  10  17  12  39

    ID: 228 2 1 1 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 1 1 0 1 0 0 1 1  8 1 1 1 0
ITM-41: 0 0 2 2 1 0 2 1 1 1  8 1 1 1 0 1 0 4 1 1 0 0 0 0 2 14 1 0 0 1 2 1 1 1
ITM-69: 0 3 0 0 1 1 2  7 0 0 1 1 0 0 0 0 0 0 1 1  4 0 0 0 0 0 0 0 1 0 1 1 1 1 1
ITM-98: 1 1 0 1 7 12 1 1 1 3 2 0 0 0 0 0  2 4 0 0 3  7 1 2 1 0 0 0  4 0 0 0 3
ITM-22: 3  0  0  6  4  0 0 0 0 1 0 1 0  6  7  15  31  28  81
```

```
    ID: 229 2 1 1 1 1 0 2 3 2 2 7 0 0 0 0  7 1 1 1 0 1 1 1 1 1 1 1 10 1 1 1 0
ITM-41: 1 0 3 2 0 1 2 0 0 0  5 1 0 0 0 0 0 1 0 0 0 0 0 0 0  6 1 0 0 0 1 1 1 1
ITM-69: 1 4 0 0 1 0 1  6 0 0 1 1 1 1 0 0 1 1 1 0  7 1 1 0 0 0 0 0 0 2 1 1 1 1
ITM-98: 0 0 0 1 5 14 0 1 0 1 0 0 0 0 0 0  0 0 0 0 1  1 2 3 2 3 1 0 11 1 1 2 3
ITM-22: 0  6  4  13  4  8 1 1 1 1 1 1 1  19  14  36  27  19  96

    ID: 230 1 2 1 1 1 0 2 3 2 2 7 1 2 1 4 11 1 1 1 1 1 0 0 0 1 1 1  8 2 1 1 0
ITM-41: 0 0 2 2 2 2 2 2 0 0 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 10 0 0 0 0 0 0 0 1
ITM-69: 1 2 0 0 1 1 2  4 1 0 1 1 0 1 0 0 1 0 1 1  7 0 1 1 0 0 1 0 1 4 0 0 1 0
ITM-98: 1 0 0 0 2 13 1 1 1 3 0 0 1 0 0 0  1 0 0 0 0  0 2 1 1 2 1 1  8 1 0 1 3
ITM-22: 3  3  12  21  4  6 1 0 1 0 0 1 0  13  12  38  24  25  99

    ID: 231 2 1 1 1 1 1 3 3 2 0 5 0 0 0 0  5 1 1 1 1 1 1 1 0 1 1 1 10 2 1 1 0
ITM-41: 0 1 3 1 1 0 2 0 0 0  4 1 0 1 0 0 0 2 0 0 0 0 0 0 0  6 0 0 0 0 0 1 0 1
ITM-69: 0 2 0 0 1 0 1  3 1 0 1 1 1 0 0 1 1 0 1 1  8 0 0 1 1 0 1 0 0 3 1 1 1 1
ITM-98: 0 0 1 1 6 17 1 1 1 3 0 1 0 0 2 0  3 1 1 2 1  5 0 0 0 0 0 0  0 1 0 1 3
ITM-22: 3  6  12  24  4  8 1 0 1 1 1 1 1  18  4  47  38  14 103

    ID: 232 2 5 1 1 1 1 3 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 0 0 1 1  9 2 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 0 0 10 1 1 1 0 0 0 3 1 1 1 1 0 0 4 17 0 0 0 0 0 1 1 0
ITM-69: 1 3 0 0 1 1 2  5 0 0 1 0 0 0 0 0 1 1 1 0  4 0 0 0 1 1 1 0 0 3 1 1 1 1
ITM-98: 0 0 0 1 5 12 1 1 1 3 2 0 2 0 1 0  5 2 0 1 1  4 3 3 3 3 3 3 18 1 1 2 3
ITM-22: 3 -2 -12  -8  4  6 0 0 0 0 0 0 0  10  23  8  33  30  94

    ID: 233 1 1 1 1 1 0 2 3 1 0 4 0 0 0 0  4 1 1 1 0 1 1 1 0 0 0 0  6 0 1 1 1
ITM-41: 0 0 3 1 1 0 1 0 0 0  3 1 0 0 0 0 0 0 1 1 1 0 0 0 0 2  6 0 1 0 0 1 1 1 1
ITM-69: 0 3 0 0 1 0 1  5 1 1 1 1 0 0 1 0 1 0 1 0  7 1 1 0 0 1 1 0 1 5 1 1 1 1
ITM-98: 1 1 0 1 7 19 0 1 1 2 0 1 2 2 1 0  6 0 0 1 0  1 2 3 2 2 0 0  9 0 0 0 3
ITM-22: 0  2  0  5  4  6 1 1 1 0 1 0 0  14  11  22  34  15  82

    ID: 234 1 1 1 1 0 0 1 0 0 0 0 0 0 0 0 0  0 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 0
ITM-41: 0 1 3 1 1 0 2 2 0 0  6 1 0 0 0 0 0 1 0 0 0 0 0 0 0  7 1 0 0 1 2 1 1 0
ITM-69: 0 2 0 0 0 0 0 0  4 0 0 1 0 1 1 0 1 1 1 1 1  8 1 1 0 0 1 0 1 1 5 1 1 1 0
ITM-98: 1 0 0 1 5 18 1 1 1 3 2 0 2 0 1 0  5 2 0 0 1  3 2 1 1 0 0 0  4 0 0 0 3
ITM-22: 3  6  0  12  4  8 1 1 1 1 1 1 1  19  7  36  38  11  92

    ID: 235 1 2 1 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 0 1 1 10 4 1 1 0
```

```
ITM-41: 0 1 3 2 2 2 2 2 0 0 10 1 1 1 1 1 3 8 1 1 1 1 1 1 6 24 1 1 1 1 4 1 1 1
ITM-69: 1 4 1 0 1 1 3 11 1 0 1 1 1 1 0 0 1 0 1 1  8 1 1 1 0 1 1 1 1 7 1 1 1 1
ITM-98: 1 1 0 1 7 22 1 0 0 1 2 0 2 2 2 0  8 1 4 1 0  6 3 3 2 2 4 2 16 1 0 1 3
ITM-22: 3  6  11  23   4   8 1 0 1 1 1 1 1  18  18  48  48  43 157

    ID: 236 1 2 1 1 1 1 3 3 1 2 6 1 0 0 1  7 1 1 1 1 1 1 1 0 1 1 1 10 2 1 1 0
ITM-41: 0 1 3 2 1 2 2 2 0 0  9 1 1 1 0 0 0 3 1 1 0 0 0 0 2 14 0 0 0 0 0 1 0 1
ITM-69: 0 2 0 0 1 1 2  4 1 1 1 1 0 1 1 0 1 0 1 1  9 0 0 1 1 1 0 1 1 5 1 1 1 1
ITM-98: 1 1 1 1 8 22 1 1 0 2 0 2 2 2 2 0  8 2 0 0 0  2 2 2 1 2 2 0  9 1 0 1 3
ITM-22: 3  6  11  23   4   4 1 0 0 0 0 1 0  10  12  38  45  25 120

    ID: 237 1 2 1 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 1 1 5 2 1 2 2 0 1 0  8 1 0 0 0 0 0 1 1 1 1 1 0 0 4 13 0 0 0 0 0 1 0 1
ITM-69: 1 3 1 0 1 1 3  6 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 0 1 1 1 1 0 5 1 1 1 0
ITM-98: 1 1 0 1 6 23 1 1 1 3 1 0 2 0 2 0  5 0 0 3 0  3 3 1 3 3 3 1 14 1 1 2 3
ITM-22: 3  6  12  24   4   8 1 0 0 1 0 1 0  15  19  46  44  27 136

    ID: 238 1 3 1 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 0 0 10 1 1 1 0 0 0 3 1 1 1 1 1 1 6 19 1 0 0 1 2 1 1 0
ITM-69: 1 3 1 1 1 1 4  9 1 1 1 1 1 1 1 1 1 1 1 1 12 1 0 1 0 1 1 1 1 6 1 1 1 1
ITM-98: 1 0 1 1 7 25 1 1 1 3 2 2 2 0 2 0  8 2 0 2 2  6 3 2 3 3 1 4 16 1 1 2 3
ITM-22: 3  4  12  22   4   8 1 0 1 1 1 1 1  18  21  49  52  36 158

    ID: 239 1 2 1 1 0 0 1 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 0 1 1 1
ITM-41: 0 1 4 2 2 2 2 1 0 0  9 1 0 0 0 0 0 1 1 1 1 1 1 1 6 16 1 1 0 1 3 1 1 1
ITM-69: 0 3 0 0 1 0 1  7 1 1 1 0 1 1 1 0 1 1 1 1 10 1 1 1 1 0 1 0 1 6 1 1 1 1
ITM-98: 1 1 1 1 8 24 1 1 1 3 2 0 2 0 0 0  4 3 0 2 1  6 1 1 1 2 1 1  7 0 0 0 3
ITM-22: 3  6 -20  -8   4   8 0 1 1 1 1 1 0  17  10  13  46  31 100

    ID: 240 1 3 1 0 1 1 2 3 2 2 7 1 2 2 5 12 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 0 0 10 1 1 0 0 0 0 2 1 1 1 0 0 0 3 15 0 1 0 1 2 1 1 1
ITM-69: 1 4 0 0 0 0 0  6 1 0 1 1 1 1 0 1 1 0 0 1  8 1 1 1 0 1 1 1 1 7 1 1 1 1
ITM-98: 1 0 0 1 6 25 0 0 0 0 2 0 2 0 2 0  6 2 0 1 1  4 3 2 3 2 3 1 14 0 0 0 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 0  18  14  50  48  33 145

    ID: 241 1 2 1 1 1 1 3 3 2 2 7 1 1 0 2  9 1 1 1 1 1 1 1 1 1 0 1 10 3 1 1 0
ITM-41: 0 1 3 2 1 0 2 2 0 0  7 1 0 0 0 0 0 1 1 1 1 0 0 0 3 11 0 0 0 0 0 1 1 1
```

```
ITM-69: 1 4 1 1 0 0 2  6 1 0 1 0 1 1 1 1 1 1 1 1 10 1 1 1 1 1 1 0 1 7 1 1 1 1
ITM-98: 1 1 1 1 8 25 1 1 1 3 1 1 2 0 2 0  6 1 0 2 0  3 3 1 3 1 1 0  9 1 0 1 3
ITM-22: 3  0  11  17  4  8 1 0 1 1 1 1 1  18  13  41  47  26 127

    ID: 242 1 4 1 1 0 0 1 3 1 2 6 1 2 0 3  9 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 0 3 2 2 2 2 1 0 0  9 0 0 0 0 1 0 1 1 1 1 1 1 1 6 16 0 0 0 0 0 1 0 1
ITM-69: 1 3 1 1 1 1 4  7 1 1 1 1 1 1 1 0 1 0 1 1 10 0 1 0 1 1 1 0 1 5 1 1 1 1
ITM-98: 1 1 1 0 7 22 0 0 0 0 0 0 1 1 0 0  2 2 0 1 2  5 1 2 2 0 2 3 10 1 0 1 3
ITM-22: 3  6  0  12  4  8 1 0 1 0 1 1 1  17  11  34  41  32 118

    ID: 243 1 4 1 1 0 0 1 3 2 2 7 1 2 4 7 14 1 1 1 1 1 1 1 1 1 1 1 11 2 1 1 1
ITM-41: 0 1 4 2 2 2 2 2 0 0 10 0 0 1 0 0 0 1 1 1 1 1 0 0 4 15 0 0 0 0 0 0 0 1
ITM-69: 1 2 0 0 1 1 2  4 0 1 1 0 0 1 1 0 1 1 1 1  8 0 0 1 0 1 1 1 0 4 0 1 1 1
ITM-98: 0 1 0 1 5 17 1 1 1 3 2 0 2 0 2 0  6 1 1 1 0  3 1 2 3 3 3 3 15 1 0 1 3
ITM-22: 3  0  0  6  4  8 1 0 1 0 1 1 0  16  19  28  38  33 118

    ID: 244 1 2 1 1 1 0 2 3 2 0 5 1 2 2 5 10 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 0
ITM-41: 0 0 2 2 2 0 2 1 0 0  7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  7 0 0 0 0 0 1 1 1
ITM-69: 0 3 0 0 0 0 0  3 1 1 1 1 1 1 0 0 0 0 1 1  8 0 1 1 0 1 0 0 1 4 1 1 1 1
ITM-98: 1 0 1 1 7 19 1 1 1 3 0 0 2 2 2 0  6 1 2 2 2  7 3 1 3 3 0 0 10 0 0 0 3
ITM-22: 3  6  11  23  4  4 1 0 1 1 1 1 1  14  13  42  45  20 120

    ID: 245 2 4 1 1 1 0 2 3 2 2 7 1 0 0 1  8 1 1 1 1 1 1 1 1 1 1 1 11 3 1 1 1
ITM-41: 1 1 5 2 2 0 2 2 2 2 12 1 1 1 0 0 0 3 1 1 1 1 1 0 5 20 0 1 1 0 2 1 1 1
ITM-69: 1 4 1 0 1 1 3  9 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 0 1 1 1 1 0 6 1 1 1 1
ITM-98: 1 0 0 1 6 24 0 0 1 1 0 1 1 1 1 0  4 4 2 3 2 11 3 3 3 3 3 3 18 1 1 2 3
ITM-22: 3  6  11  23  4  8 1 0 1 1 1 1 0  17  21  48  52  37 158

    ID: 246 2 3 1 1 1 1 3 3 2 2 7 0 0 0 0  7 1 1 1 1 1 1 1 1 1 1 1 11 4 1 1 1
ITM-41: 0 1 4 2 2 2 2 1 0 0  9 1 0 1 0 0 0 2 0 0 0 0 0 0 0 11 0 1 0 0 1 1 1 1
ITM-69: 1 4 0 0 1 1 2  7 1 1 1 1 1 1 0 0 1 0 1 1  9 1 1 1 1 1 1 1 0 7 1 1 1 1
ITM-98: 1 1 0 0 6 22 1 1 1 3 1 1 1 1 1 0  5 4 2 3 2 11 3 3 3 3 3 3 18 1 1 2 3
ITM-22: 3  6  11  23  4  8 1 0 1 1 1 1 0  17  23  48  52  25 148

    ID: 247 2 3 1 0 0 0 0 3 2 2 7 1 0 0 1  8 0 1 1 1 1 1 1 1 1 1 1 10 3 1 1 0
ITM-41: 1 1 4 2 2 2 2 1 0 0  9 1 0 0 0 0 0 1 1 1 1 1 0 0 4 14 1 0 0 1 2 1 1 1
ITM-69: 1 4 1 1 1 1 4 10 1 1 0 0 1 1 1 1 1 1 1 0  9 1 1 0 1 1 1 1 0 6 1 1 1 1
```

```
ITM-98: 1 1 1 0 7 22 0 1 1 2 0 1 0 0 0 0  1 2 0 0 0  2 0 0 0 0 0 0  0 0 0 0 3
ITM-22: 3  6   3  15   4   8 1 0 1 1 1 1 0  17   2  39  35  32 108

    ID: 248 1 3 1 1 1 0 2 3 2 2 7 1 2 0 3 10 1 1 1 1 1 1 1 0 1 1 1 10 4 1 1 1
ITM-41: 1 1 5 2 2 2 2 2 0 0 10 1 1 1 0 0 0 3 1 1 1 0 0 0 3 16 0 0 0 1 1 1 1 1
ITM-69: 1 4 0 0 1 1 2  7 1 1 1 1 1 1 1 1 1 1 1 1 12 1 1 1 1 1 1 1 1 8 1 1 1 1
ITM-98: 1 0 0 1 6 26 1 1 1 3 1 0 1 0 1 0  3 1 0 2 0  3 0 1 2 1 2 3  9 1 0 1 3
ITM-22: 3  6  12  24   4   8 1 1 1 1 1 1 1  19  13  52  44  33 142
```